GZA GeoEnvironmental, Inc.

FINAL
IPEC QUARTERLY LONG-TERM GROUNDWATER MONITORING REPORT
QUARTERS TWO AND THREE 2008
(REPORT NO. 3)
INDIAN POINT ENERGY CENTER
BUCHANAN, NEW YORK

PREPARED FOR:

ENTERGY NUCLEAR NORTHEAST, INC.

INDIAN POINT ENERGY CENTER
450 BROADWAY
BUCHANAN, NEW YORK 10511

Entergy
THE POWER OF PEOPLE™

ON BEHALF OF:
ENERCON SERVICES INC. C/O
INDIAN POINT ENERGY CENTER
295 BROADWAY, SUITE 3
P.O. BOX 308
BUCHANAN, NY 10511-0308

PREPARED BY:

GZA GEOENVIRONMENTAL OF NEW YORK

440 NINTH AVENUE, 18TH FLOOR
NEW YORK, NEW YORK 10001

FEBRUARY 6, 2009
FILE NO. 01.0017869.91

Copyright © 2009 GZA GeoEnvironmental of New York

GZA
GeoEnvironmental, Inc.

Engineers and
Scientists

February 6, 2009
File No. 01.0017869.91

Mr. Robert Evers
Enercon Services Inc. c/o
Indian Point Energy Center
295 Broadway, Suite 3
P.O. Box 308
Buchanan, NY 10511-0308

One Edgewater Drive
Norwood
Massachusetts
02062
781-278-3700
FAX 781-278-5701
http://www.gza.com

Re: **FINAL IPEC Quarterly Groundwater Monitoring Report**
Quarters Two and Three 2008 (Report No. 3)
Indian Point Energy Center
450 Broadway
Buchanan, New York 11501

Dear Mr. Evers:

GZA GeoEnvironmental of New York (GZA) is pleased to provide this Quarterly Groundwater Monitoring Report for our mutual client, Entergy Nuclear Northeast, Inc. for Indian Point Energy Center located at 450 Broadway, Buchanan, NY.

We trust that this information satisfies your present needs. Should you need any additional information, please do not hesitate to call us at (212) 594-8140.

Very truly yours,

GZA GEOENVIRONMENTAL OF NEW YORK

Sara Covelli
Staff Engineer

Michael Powers, PE
Consultant/Reviewer

Matthew Gozdor
Senior Technical Specialist

Matthew J. Barvenik, LSP
Senior Principal

Attachments: 3 Copies

Copyright © 2009 GZA GeoEnvironmental, Inc.

TABLE OF CONTENTS

Page

1.0 EXECUTIVE SUMMARY 1-1

2.0 SCOPE OF WORK 2-1

2.1 Groundwater Elevation Measurement 2-1
2.2 Groundwater Sampling 2-1
2.3 Vapor Containment Building Foundation Drain Sampling 2-2
2.4 Preventative Maintenance 2-3
2.5 Mid-Quarter Sample Collection 2-3
2.6 Sample Collection for Tracer (Fluorescein) Analysis 2-3

3.0 DATA EVALUATION 3-1

3.1 Groundwater Mass Flux 3-1
3.1.1 Groundwater Mass Flux Computation 3-1
3.1.2 Quarterly Groundwater Mass Flux Calibration 3-2
3.2 Groundwater Sampling 3-4
3.2.1 Groundwater Sampling Results 3-4
3.3 Radionuclide Release Rates 3-4
3.4 SSCs and Property Boundary Monitoring 3-5
3.5 Boundary Investigation Levels 3-7
3.5.1 SSC Investigation Levels 3-7
3.5.2 Conclusions - Boundary and SSC Leak Detection Monitoring 3-10
3.6 Plume Natural Attenuation Monitoring 3-10
3.7 Tracer (Fluorescein) Analyses 3-11

4.0 CONCLUSIONS AND PLANNED ACTIVITIES 4-1

IPEC00201736

TABLES

Table 1 Groundwater Sampling Methods, Equipment, Frequency, and Depths

Table 2 2008 2nd and 3rd Quarter Low Tide Groundwater Elevations

Table 3 2008 3rd Groundwater Analytical Results and Averages

Table 4 2008 3rd Quarter Groundwater Analytical Results

Table 5 Historic Groundwater Analytical Results

Table 6 Current Tracer (Fluorescein) Analytical Results

FIGURES

Figure 1 Site Location Plan

Figure 2 Site Plan

Figure 3 Lower Hudson Valley Geologic Map

Figure 4 Current and Potential Future SSC Source Locations

Figure 5 2nd Quarter 2008 Shallow and Deep Groundwater Contours

Figure 5A 3rd Quarter 2008 Shallow and Deep Groundwater Contours

Figure 6 3rd Quarter 2008 Average Tritium Activity Map

Figure 7 3rd Quarter 2008 Average Strontium-90 Activity Map

Figure 8 3rd Quarter 2008 Average Cesium, Cobalt, and Nickel Activity Map

Figure 9 Current Tracer (Fluorescein) Concentrations Map

APPENDICES

Appendix A: Limitations

Appendix B: Transducer Installation Logs

Appendix C: Chains of Custody

Appendix D: 3rd Quarter 2008 Sampling Data Sheets

Appendix E: Pre-Q3 2008 Mid-Quarter Sampling Data Sheets

Appendix F: Post-Q3 2008 Mid-Quarter Sampling Data Sheets

Appendix G: Dose Calculations

1.0 EXECUTIVE SUMMARY

On behalf of Entergy Nuclear Northeast, Inc., GZA GeoEnvironmental of New York (GZA) has completed the Q2&3 2008 quarterly groundwater monitoring report for the Indian Point Energy Center (IPEC). The radionuclide concentrations measured during Q3 2008 were combined with previous quarterly data[1] to compute rolling average concentrations reflective of groundwater contaminant levels over the past fifteen months[2]. These data were multiplied by the associated individual groundwater flux values, derived from the Precipitation Mass Balance Model, to compute yearly average radionuclide release rates to the Discharge Canal and Hudson River. The Conceptual Site Model (CSM) continues to be validated through the ongoing verification of the Precipitation Mass Balance Model calibration, as based on groundwater elevation data collected in 2007 and 2008[3], as well as a recent analysis of residual tracer concentrations in selected monitoring locations.

Based on the quarterly groundwater sampling data for Q3 2008[4], GZA concludes that groundwater contaminants continue to migrate toward the Hudson River to the West, and have not migrated off the Site to the North, East or South.

The Q3 2008 data indicate that the Unit 2 Tritium and Unit 1 Strontium plumes contain radionuclide levels that are generally at or below those measured during previous quarterly monitoring. We therefore conclude that no new leaks to groundwater have been detected in the Structures, Systems and Components (SSCs) monitored, with one exception. This exception involves the temporary, increased leakage from the Unit 1 Spent Fuel Pool Complex (SFPs), as anticipated during the final removal of the residual fuel rods for ISFSI storage. This additional leakage was verified by the Long Term Monitoring Program, with measurement of a pronounced increase in radionuclide levels in the groundwater immediately downgradient of the Unit 1 SFPs. As such, these data support the validity of the current Conceptual Site Model for use as a basis for Long Term Monitoring Program design.

In addition to the detection of an actual "new" SSC leak, as described above, the Long Term Monitoring Program also yielded a number of false positives again this quarter; i.e., where the currently established Investigation Levels (I.L.s) were met without new leakage. These cases are analyzed individually in the report and none were found to indicate a new leak in the SSCs. Based on the Q3 2008 data, as well as that collected during 2007 and Q1 2008, it currently appears that the I.L.s originally established are somewhat too sensitive relative to natural seasonal/precipitation-driven transient variations in radionuclide activities, as well as the variability inherent in the laboratory analyses. As such, these existing I.L.s will need to be re-evaluated over the next quarter.

---

1 In cases where samples were taken in addition to the quarterly samples (e.g., mid-quarter samples associated with refueling events), the additional sample data were not included in the yearly averages so as not to bias the averages to a specific season (i.e., the season when additional samples were obtained).

2 It is noted that the quarterly data is typically averaged over a one year period. However, the radionuclide data for the previous quarter (Q2 08) was not suitable for use due to laboratory cross-contamination issues. Therefore, Q3 07 data was included so as to provide four quarters of data for averaging.

3 The formulation and basis for the Precipitation Mass Balance model, as well as the overall Conceptual Site Model, is presented in the Hydrogeologic Site Investigation Report, January 7, 2008, prepared by GZA GeoEnvironmental, Inc. on behalf of Enercon Services, Inc., for Entergy Nuclear Northeast, Indian Point Energy Center, 450 Broadway, Buchanan, NY 10511.

4 Note that a second quarter 2008 report was not prepared due to laboratory cross-contamination of second quarter groundwater samples. The cross-contamination issue was resolved prior to analysis of the third quarter samples. As a result, only groundwater contours from the second quarter 2008 can be presented in this report.

The data further indicate that the plumes have remained relatively stable since the last (Q1 2008) monitoring period, when the plumes are viewed in their entirety and the past release events and expected seasonal variability in the sampling data are accounted for. Given the above, ultimate confirmation of plume attenuation will require monitoring over a number of years to allow ranges in seasonal variation to be adequately reflected in the monitoring data. Overall, however, GZA believes that continued monitoring will further demonstrate decreasing long term trends in groundwater contaminant activities over time given the source interdictions completed by Entergy to date.

2.0 SCOPE OF WORK

During Q2&3 2008[5], GZA performed groundwater monitoring activities at Indian Point Energy Center (IPEC) in Buchanan, New York (Site) as part of IPEC's overall Long Term Groundwater Monitoring Program (LTMP) at the Site. The overall foundation for the development and execution of this LTMP is based on the Conceptual Site Model, a description of which is contained within GZA's Hydrogeologic Site Investigation Report[6]. The scope of work completed for this quarter's monitoring is described in the Sections below. Refer to **Figures 1 and 2** for a Site Location Plan and Site Plan. **Figure 3** provides a Lower Hudson Valley Geologic Map and **Figure 4** summarizes Current and Potential Future SSC Source Locations.

2.1 Groundwater Elevation Measurement

GZA currently maintains transducers and dataloggers as part of the monitoring instrumentation located across the Site[7]. These instruments record groundwater elevation and temperature measurements at regular time intervals. Transducer installation logs are presented in **Appendix B**.

Following the quarterly sampling, GZA downloaded groundwater elevation data collected by the pressure transducers over the duration of the quarter. Using these data, GZA developed Site groundwater elevation contours at low river tide conditions for the upper and lower portions of bedrock. These data are presented on **Table 2** and **Figures 5 and 5A** for the April 4, 2008 and July 10, 2008 low river tides, respectively.

The groundwater contour maps are used to compute groundwater flow gradients, which are used to provide ongoing calibration of the Precipitation Mass Balance Model (as used in IPEC's radiological dose computations – see **Section 3.1**). It is anticipated that sufficient seasonal groundwater elevation data will be collected by the end of 2008 to verify the suitability of the model for dose computation. As such, it is currently our intent to substantially reduce the scope of groundwater elevation data collection at that time.

2.2 Groundwater Sampling

During Q3 2008, GZA collected groundwater samples for radionuclide analysis from scheduled sampling intervals within select monitoring installations ("wells") as shown in **Table 3**. In addition, GZA split groundwater samples from select locations between Entergy and the Nuclear Regulatory Commission (NRC). Chains of Custody for samples collected by GZA are presented in **Appendix C**.

GZA used different types of pumping equipment depending upon the sampling method and the characteristics of the individual monitoring installation[8]. **Table 1** lists the monitoring installations

---

5 Refer to the "Final Quarterly Long-Term Groundwater Monitoring Report Q2–Q4 2007 (Report No. 1)", dated May 2008 for Site background information and a description of the environmental setting.
6 Hydrogeologic Site Investigation Report, January 7, 2008, prepared by GZA GeoEnvironmental, Inc, on behalf of Enercon Services, Inc., for Entergy Nuclear Northeast, Indian Point Energy Center, 450 Broadway, Buchanan, NY 10511.
7 It is noted that the transducers will be maintained operational for the next quarter sampling (i.e., Q4 2008). Thereafter, only select a set of transducers will be maintained.
8 Refer to Section 4.3 of the Final 2007 Quarterly Long-Term Groundwater Monitoring Report No. 1, dated May 2008, and prepared by GZA for sampling method and equipment selection rationale.

IPEC00201740

sampled, the sampling depths and elevations with in sampling installations, and the sampling method and equipment used.

In general, GZA implemented two basic methods of sampling to collect representative groundwater samples: the low flow method and a modified well volume purge method. The Low Flow method allows collection of representative groundwater samples from discrete sampling zones within a monitoring installation, while limiting the accumulation of wastewater[9]. As agreed by Entergy Nuclear Northeast, the NRC, the New York State Department of Environmental Conservation (NYSDEC), and GZA, the modified traditional purge method[10] allows for the collection of a representative groundwater sample from a monitoring installation after purging 1.5 volumes of water. We implemented this method in wells where low flow sampling was not practical[11]. Sampling Data Sheets summarizing water quality data and sampling information are presented in **Appendix D**.

With all of the above sampling methods, GZA used dedicated sampling equipment, including polyethylene and/or nylon tubing and submersible electric pumps to the extent practical. The use of dedicated sampling equipment limits the possibility of cross-contamination between monitoring installations and/or individual multi-level samples within a single installation. Refer to **Table 1** for a summary of the sampling methods, equipment, frequency, and depths employed during this quarter's groundwater monitoring round.

2.3 Vapor Containment Building Foundation Drain Sampling

GZA attempted to collect water samples from three manholes on-Site to characterize discharge from foundation drains around and below the Unit 2 and 3 Vapor Containment Structures (the drains include both the foundation drains around the building periphery ("curtain drains") as well as those around the sumps near the middle of the structures). These drains are being used as an integral part of the early leak detection monitoring network. However, due to plant security precautions, GZA was unable to access these sampling points (manholes are currently welded shut). A plan to gain access to these sampling locations without compromising plant security is underway. GZA anticipates that collection of samples from at least two of the three manholes will be possible by Q1 2009.

During previous quarters, GZA sampled the east drain line in manhole MH-5 to capture drainage from the Unit 2 Vapor Containment Foundation Drains. GZA also previously sampled the east drain line in manhole B-1 to capture drainage from the Unit 3 Vapor Containment South Curtain Drain. In addition, GZA sampled the manhole B-6 during earlier sampling quarters to capture drainage from the Unit 3 Vapor Containment North Curtain Drain and Reactor Sump Foundation Drain[12].

---

9 As described in: Low-Flow Sample Collection, GZA, 7/18/2007

10 As described in: Modified Traditional Groundwater Sample Collection, GZA, 7/18/2007

11 When external factors (such as well-surface-flooding from stormwater runoff or overland flow of plant component leaks) might have infiltrated the top of the well and impacted ambient groundwater conditions at a specific sampling location, GZA typically purged three to five volumes of water (using the modified traditional purge method) prior to collection of a sample to attempt to obtain a representative groundwater sample.

12 During early attempts to collect a discrete sample specifically representative of the east drain line in B-6, this catch basin was used as a clean water discharge point for some unidentified plant work. As a result, the height of the water within the manhole was above the drain lines, which only permitted collection of a composite sample. By mid-year 2008, these discharge operations had ceased, and during the Q2 2008 attempt to collect a sample from this location, GZA observed no flow of water through this drain. It is possible that flow within this drain is being restricted by sediment further upgradient in the drain. Thus, a definitive sampling solution for storm drain manhole B-6 is currently not available.

2.4 Preventative Maintenance

GZA performed general wellhead maintenance tasks, such as housekeeping of well vaults and roadboxes, and replacement of dedicated sampling equipment, tubing and transducers.

2.5 Mid-Quarter Sample Collection

During the spring of 2008, Indian Point Energy Center began moving spent fuel in Unit 1 and refueling Unit 2. Therefore, samples in addition to those collected for the routine quarterly sampling round were obtained from selected wells associated with Units 1 and 2 to increase the monitoring frequency proximate to these events. Additional groundwater samples were collected from MW-42-49, MW-50-66, MW-53-120, and U1-CSS (for Unit 1 monitoring); MW-30-69, MW-30-84, MW-31-49, MW-31-63, MW-32-59, MW-32-85 (for Unit 2 monitoring); and MW-40-100, MW-40-127, MW-51-40, MW-51-79, and MW-107 (for additional boundary monitoring) during the approximate halfway point between sampling quarters. The results of the mid-quarter samples collected prior to and after Q3 2008 are presented in **Section 3.4** along with the quarterly data. Sampling Data Sheets summarizing water quality data and sampling information are presented in **Appendix E**.

2.6 Sample Collection for Tracer (Fluorescein) Analysis

In early 2007, GZA conducted a tracer test by injecting fluorescein tracer dye at the top of rock near the Unit 2 Fuel Pool (directly adjacent to MW-30) to simulate a leak of fuel pool water. Although the tracer test was formally completed and the collection of groundwater tracer samples finished in the summer of 2007, GZA collected additional samples during Q3 2008 in response to:

1. Previous increases in tritium activity in MW-31, MW-36 and MW-37; and
2. A desire to continue to validate the Conceptual Site Model through further evaluation of the retention/storage mechanism described in GZA's January 2008 Final Investigation Report.

In conjunction with the regular quarterly sampling during Q3 2008, GZA collected samples from MW-30, MW-31, MW-32, MW-33, MW-36, MW-37, MW-42, MW-53, MW-55, MW-66, MW-67, MW-111, RW-1, and U1-CSS for fluorescein analysis.

3.0 DATA EVALUATION

The Long Term Monitoring Program was designed to provide data to address four main objectives:

- Monitor groundwater flow rate and radionuclide concentrations to both detect and characterize current and potential future off-Site groundwater contaminant migration to the Hudson River, both via direct groundwater discharge to the river and through infiltration into the Discharge Canal, from *abnormal radionuclide releases* of liquid effluents, so as to allow computation of potential radiation dose to the public from these releases;
- Monitor groundwater proximate to Systems, Structures and Components (SSCs) which exhibit a credible probability of resulting in a visually undetected release of radionuclides to the subsurface carrying an activity level of significance;
- Monitor groundwater along the property boundary to confirm that contaminated groundwater is not migrating off of the property to locations other than the river; and
- Monitor the groundwater plumes identified on-Site to demonstrate overall reductions in total activity over time as is consistent with the requirements of Monitored Natural Attenuation (MNA)[13], the selected remediation for the IPEC Site.

These objectives are consistent with and fully encompass the guidance provided in the NEI Groundwater Protection Initiative. The following sections provide data analyses to address these four objectives.

3.1 Groundwater Mass Flux

The following sections describe the computation of groundwater flow (mass flux) through the Site using the Precipitation Mass Balance Model and the continuing verification of the calibration of this model based on the most current quarterly groundwater elevation monitoring data.

3.1.1 Groundwater Mass Flux Computation

As presented in the Hydrogeologic Site Investigation Report, groundwater flow in both the upper and lower flow zones is toward the power block area from the North, East and South, with subsequent discharge to the Hudson River to the West. A corollary to this conclusion is that there is no groundwater flow, and thus no off-Site radionuclide migration from the power block area to the North, East or South. Groundwater flow associated with infiltration from the watershed may be as deep as 350 feet, but still ultimately discharges to the river.

To estimate groundwater flow (i.e., groundwater mass flux) beneath the Site, an analytical groundwater flow model was constructed based on a Precipitation Mass Balance Model using with the Q2 2007 (reference) data set. This model is based on the precept that, on a long term average, the groundwater flowing through and discharging from the aquifer is equal to the watershed infiltration recharge. The Precipitation Mass Balance Model was also calibrated to groundwater fluxes based on a Darcy's Law Model with gradients also derived from Q2 2007

13 The selection of MNA as the remediation for the Site is more fully discussed in the Hydrogeologic Site Investigation Report.

IPEC00201743

(June 1, 2007) groundwater elevation contours[14]. This calibration not only verified the reasonableness of the overall groundwater flow rates predicted by the Precipitation Mass Balance Model, but also allowed further discretization of the groundwater flow into upper and lower flow zones as well as flow volumes upgradient and downgradient of the Discharge Canal.

The mass balance approach recognizes that the only substantial source of recharge to the aquifer is areal recharge derived from precipitation. The previous ten year average for precipitation measured at the Site is 36 inches per year. Based on a USGS infiltration study[15] as well as the model calibration cited above, approximately 29 percent of the precipitation falling on pervious surfaces over the Site watershed area results in infiltration recharge to the groundwater. This computation indicates that the groundwater recharge rate is approximately 10.5 inches per year for the 2007/2008 monitoring period.

Appling this information to the pervious surfaces within the six individual groundwater flow zones shown on **Figure 4**, it is estimated that approximately 5.2 gpm of groundwater flows into the Discharge Canal from the upper and lower zones. In addition, approximately 5.8 and 7.7 gpm of groundwater flows into the Hudson River from the upper and lower zones, respectively. Furthermore, the mass balance model accounts for storm water discharge[16] to both the Discharge Canal and directly to the Hudson River which are estimated to be 39 and 4 gpm, respectively. These flows can be further subdivided into flow zones as shown in the table in **Appendix F**.

3.1.2 Quarterly Groundwater Mass Flux Calibration

As indicated above, the Precipitation Mass Balance Model was calibrated to groundwater fluxes computed based on a Darcy's Law Model. The calibration compared the total groundwater flow values for each of the six flow zones computed independently[17] using the Precipitation Mass Balance Model and the Darcy's Law Model. The initial calibration was performed using gradients derived from contours of groundwater elevation measured on June, 1 2007, as described in the Hydrogeologic Site Investigation Report.

As part of the initial portions of the Long Term Monitoring Program[18], this calibration is being evaluated quarterly to verify that seasonal changes in groundwater elevations do not materially impact the calibration. Therefore, quarterly groundwater elevations measured with pressure transducers at representative low river tides[19] have been used to construct groundwater elevation contours for the upper groundwater flow zone (water table contours) and the lower

---

14 Refer to the Hydrogeologic Site Investigation Report prepared by GZA and dated January 7, 2008.
15 USGS. Water Use, Ground-Water Recharge and Availability, and Quality of Water in the Greenwich Area, Fairfield County, Connecticut and Westchester County, New York, 2000-2002.
16 The storm drains also include groundwater discharges from the foundation drains for Unit 2 and Unit 3 VC Buildings.
17 The two models use different sets of input parameters which are not dependent or related to each other. The groundwater flow computed using the Precipitation Mass Balance Model is based on yearly precipitation amounts and the proportion of this precipitation that results in infiltration recharge to the groundwater. The Darcy's Law Model, on the other hand, is based on the measured groundwater flow gradients (as computed from groundwater elevation contours) and estimates of the formation hydraulic conductivity.
18 It is anticipated that six to eight quarters of seasonal groundwater elevation data should be sufficient to capture sufficient seasonal and yearly groundwater flow variation to verify the validity of the current calibration. It is anticipated that once these data are obtained, the model will be recalibrated to the data set that yields the largest groundwater flow values, so as to be conservative. The scope of groundwater elevation data collection will be reduced at that point.
19 Previous evaluations (provided in the Hydrogeologic Site Investigation Report) have shown that the shape of the groundwater contours is relatively unchanged at different times of the tidal cycle. However, the use of low tide contours provides the greatest transient gradients (larger than the average gradient) and therefore result in a computed groundwater flux from the Site that is biased high. Computation of radionuclide release rates to the river based on these data will therefore also have a high bias (i.e., they will be conservative).

IPEC00201744

flow (potentiometric head contours), as shown in **Figure 5** for Q2 2008 and **Figure 5A** for Q3 2008. As summarized on the table included below, similar calibration analyses were performed for previous quarterly monitoring (2nd, 3rd and 4th quarters of 2007, and 1st quarters of 2008)[20, 21].

Figures 5 and **5A** show that the deep zone groundwater contours continue to be a subdued reflection of the upper zone groundwater contours. This demonstrates that the anthropogenic effects at the Site are generally shallow. The groundwater flows computed using the Darcy's Law Model in each of the six flow zones, for each of the available quarterly data sets, are compared to the flows used in the calibrated Precipitation Mass Balance Model (see table below).

	PRECIPITATION MASS BALANCE MODEL (GPM)	DARCY LAW MODEL (GPM)					
	Q2 2007	Q2 2007	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008
Totals	18.8	18.8	18.4	18.2	20.6	25.7	23.7
Northern Clean Zone	1.4	0.7	0.7	0.5	0.9	0.4	0.4
Unit 2 North Zone	0.6	0.8	0.9	0.8	1.3	0.5	0.6
Unit 1 / 2 Zone	2.8	2.3	1.7	2.1	3.2	2.5	1.9
Unit 3 North Zone	3.2	4.5	4.4	4.1	5.5	6.6	5.1
Unit 3 South Zone	3.5	2.6	2.8	2.7	2.2	5.4	5.8
Southern Clean Zone	7.4	7.9	7.9	8.1	7.6	10.3	9.9

The new data for Q2 and Q3 2008 show that the overall groundwater flow through the Site for these most recent quarters is greater than previous quarters by approximately thirty percent. This is as would be expected given the overall increase in precipitation for this period[22]; groundwater levels, and thus flow, typically increase during periods of greater precipitation and infiltration. As shown in the table, the increased flow is manifested in a zone-specific manner, with the more southerly zones primarily showing the increases. This is also as would be expected given that the Unit 1 and Unit 2 foundation drains capture a large portion of the more northerly flow prior to it reaching he river.

While the computed increase in flow may seem substantial, it would have[23] only limited impact on the dose computations for two primary reasons: 1) the dose computations are performed on

---

20 See Final 2007 Quarterly Reports dated May 1, 2008, and Quarter 1 2008 Quarterly Report dated May 15, 2008 and prepared by GZA.

21 There was no formal 1st quarter monitoring event in 2007 given that the Long Term Monitoring Program had not yet been initiated.

22 The Q2 2008 groundwater contours were developed from data collected on April 4, 2008; the on-site meteorological station reported that the previous month saw 3.77 inches of precipitation while normal is approximately 2.78 inches. In addition, the winter snow (and subsurface frost layer) melt are still likely to be reflected in the groundwater flow rate. The Q3 2008 data was collected (July 10, 2008) during a period of relatively heavy rainfall (i.e. July 2008 saw 5.50 inches of precipitation which is 2.38 inches above normal).

23 The dose computations are currently all performed with the flows computed for the Q2 2007 data set. As such, the dose computed is higher than would be computed using either the Q2 or Q3 2008 data given the higher flow in Zone 1 / 2 for the Q2 2007 data; as previously emphasized, Zone 1 / 2 carries by far the highest activity of all the Zones. Once additional quarterly flow values have been amassed, the "reference set of flows" (currently Q2 2007) will be re-established to be conservative based on all the available data at that time.

a yearly average basis so the higher current flows would be averaged with the lower preceding values; and 2) the highest activities are found in the Zone 1 / 2 area where the flows have not shown as great an increase as in the more southerly, cleaner areas. Given the small variability of flow over the seasons monitored to date, as well as the overall recognition that the computed doses to the river are a small fraction of the permitted amounts, GZA believes that recalibrating the Precipitation Mass Balance Model, as used to compute groundwater flux through the Site as part of the radionuclide dose computation, is not warranted at this time[24].

3.2 Groundwater Sampling

The following sections describe the groundwater sampling results and associated QA/QC protocols.

3.2.1 Groundwater Sampling Results

Groundwater samples collected on behalf of Entergy during Q3 2008 were analyzed for radionuclides including Tritium, Sr-90, Cs-137, Co-60, and Ni-63 at GEL Laboratories[25]. **Table 3** presents the Q3 2008 analytical results specific to Tritium, Sr-90, Cs-137, Co-60, and Ni-63. The rolling yearly averages, which were calculated from Q3 and Q4 2007 and Q1 and Q3 2008, are also presented in **Table 3**[26]. **Table 4** presents minimum detection concentrations (MDC), standard deviation, and Investigation Levels (I.L.s) assigned to each well for the Q3 2008 analytical results. **Table 5** presents historic Site groundwater analytical data. Isopleth maps of rolling averages for Tritium and Sr-90 are presented in **Figures 6** and **7**, respectively. **Figure 8** presents a data map of rolling averages for Cs-137, Co-60, and Ni-63.

An overall evaluation of the sample handling, shipment and analytical procedures, indicate that the quality assurance quality control protocols have been complied with for Q3 08[27], and the analytical results should be useable. This conclusion is further supported by a review of the Q3 2008 analytical data, as compared to previous historical trends. Refer to section 5.2.2 of the Final 2007 Quarterly Long-Term Groundwater Monitoring Report No. 1 for further details pursuant to quality assurance quality control protocols.

3.3 Radionuclide Release Rates

The calibrated Precipitation Mass Balance Model derived groundwater flows within each of the six flow zones are multiplied by yearly rolling average radionuclide levels within each zone (computed separately for upper and lower flow zones as well as upgradient and downgradient of the Discharge Canal) to compute groundwater radionuclide release rates to the Discharge Canal and Hudson River. Storm drain flows computed based on yearly precipitation rates are multiplied by radionuclide concentrations measured in the storm drains to compute the associated storm drain radionuclide release rates to the Discharge Canal and Hudson River[28]. The selection of specific monitoring locations for each of the six zones is described in the

---

24 Once sufficient seasonal data has been collected, it is anticipated that the model will be recalibrated to the quarterly data set that yields the largest groundwater flow values, so as to be conservative.
25 It should be noted that samples were analyzed for gamma emitters via gamma spectroscopy. Although only Co-60 and Cs-137 are reported, gamma spectroscopy could detect and identify other gamma emitters if they became present in groundwater.
26 An overall evaluation of the Q2 2008 sample analytical procedures employed by the laboratory for this round of samples indicated that the quality assurance quality control protocols had not been complied with, and the analytical results for Q2 2008 are not useable for calculation of the rolling averages. Therefore, the Q3 07 data was used to provide four quarters of data.
27 As indicated above, the Q2 2008 data did not met quality assurance quality control protocols.
28 The storm drains also include groundwater discharges from the foundation drains for Unit 2 and Unit 3 VC Buildings.

January 25, 2008 Memorandum – Synopsis of Long Term Monitoring Plan Bases. The radionuclide release rates from the groundwater and storm drains to the Discharge Canal and Hudson River for Q3 2008 are shown in the table on the following page.

	GROUNDWATER AND SURFACE WATER TO RIVER (CI/YR)	GROUNDWATER AND SURFACE WATER TO CANAL (CI/YR)
Northern Clean Zone*	4.15E-4	0.00E+0**
Unit 2 North Zone	4.27E-4	1.38E-2
Unit 1/2 Zone	9.26E-3	4.29E-3
Unit 3 North Zone	1.16E-3	1.61E-3
Unit 3 South Zone	1.02E-3	4.77E-3
Southern Clean Zone	4.07E-3	0.00E+0***

* Activity in the Northern Clean Zone is attributable to an assumed background concentration of 150 pCi/L in the groundwater. The remaining radionuclides were assumed to not be present in this streamtube. Radionuclide release rate in the Southern Clean Zone is calculated from activity measured in monitoring wells MW-40 and MW-51.
** The radionuclide release rate to the Discharge Canal from the Northern Clean Zone is zero because the Discharge canal does not extend far enough to the north to be downgradient of the Northern Clean Zone.
*** The radionuclide release rate to the Discharge Canal from the Southern Clean Zone has been computed to be zero because groundwater in this zone appears to flow under the Discharge Canal and directly to the river. This conclusion has been reached given that the surface water level in the Discharge Canal is, on average tidally, equal to the proximate groundwater elevation, both of which are above the water level elevation in the Hudson River.

Release rates are then used by Entergy to calculate the radiological dose to the environment via the Discharge Canal and the Hudson River using the procedure outlined in the Liquid Radioactive Effluents (0-CY-2740) document, prepared by Entergy and dated January 12, 2007.

3.4 SSCs and Property Boundary Monitoring

The Long Term Monitoring Program has been designed to also provide rapid detection of potential leaks from Systems, Structures and Components (SSCs) which exhibit a credible probability of resulting in a visually undetected release of radionuclides to the subsurface. The monitored SSCs are shown on **Figure 4** and a description of the specific monitoring installations associated with each SSC are provided in the January 25, 2008 Memorandum – Synopsis of Long Term Monitoring Plan Bases. In addition to monitoring the SSCs, on-Site and off-Site wells are used to monitor the property boundaries for unanticipated radionuclide migration across these boundaries. Again, the rationale underpinning the selection of wells designated for this purpose is provided in the above cited Memorandum. These monitoring protocols are consistent with the NEI Groundwater Protection Initiative.

As discussed with the NRC during our Groundwater Protection Initiative meeting on August 12 and 13, 2008, Entergy has initiated a program of increased sampling frequency (in addition to the quarterly samples) at select wells during/following activities that could potentially result in the increased likelihood of an undetected release to the subsurface. During this quarter, two activities warranted increased sampling: 1) The final removal of the residual fuel remaining in

the Unit 1 West Pool for ISFSI storage[29]; and 2) refueling of Unit 2[30]. An evaluation of these increased sampling results is described in the sections below along with the quarterly results.

Investigation Levels were established for the associated monitoring wells to set quantitative radionuclide concentrations above which further action would be undertaken. As part of the ongoing groundwater monitoring program, the reported analytical concentrations are compared against the I.L.s shown in the table below. Investigation Levels are currently computed each year based upon yearly averages of the quarterly groundwater sampling analytical results of the previous year. The I.L.s generally described on the following page and presented in **Table 4** are established for comparison with 2008 analytical results based on the quarterly samples collected and analyzed in 2007. A new method of calculation is presently being evaluated and may be employed in 2009.

WELL ID	INVESTIGATION LEVELS (I.L.S)		
	TRITIUM PCI/L	SR-90 PCI/L	OTHER PLANT-RELATED RADIONUCLIDES
Off-Site Boundary Wells (LAF-002)	any detection*	any detection*	any detection*
On-Site Boundary Wells (MW-40, MW-51, MW-52, and MW-107)	1,000**	2**	any detection*
Riverfront Boundary Wells (MW-60, MW-62, MW-63)	2,000**	2**	any detection*
All Other Wells	>2x average***	>2x average***	>2x average***

* A radionuclide is positively detected when the result is greater than or equal to the MDC and 3 times the 1 sigma uncertainty.
** The values of 1000 and 2000 pCi/L for H-3 and 2 pCi/L for Sr-90 have been chosen to be low enough to result in timely detection of a new release or change to an existing release and still be outside the normal expected range of sample results at these locations, to the extent possible with the currently available data over time.
*** Any positively detected radionuclide that has a result greater than 2 times the average from the previous year. The IL is not reached until an H-3 result is greater than 1000 pCi/L or a Sr-90 result is greater than 2 pCi/L.

In the event that the analytical results of a groundwater sample exceed the designated I.L., the following series of actions will be considered:

- Contact the laboratory to verify that all quality control checks were satisfactory, sufficient sample volume was used; required MDC's were met, etc.;
- Re-analyze aliquots of the original sample;

---

29 As part of the process for final fuel removal from Unit 1, IPEC began increasing the water level in the pools to Elevation 55' starting on April 23, 08, with completion on the 25th. As anticipated based on previous work, increased leakage at high water was observed, particularly from the transfer canal. IPEC believes that the leakage is through the concrete into the Chemical Systems Bldg 33' area given increased Sphere Valve Gallery sump pump activation on the 14' level. During fuel removal, IPEC continued to add water to maintain the pool level at 55' until October when all the fuel was removed and the pools were drained. Given the anticipated increased leakage, GZA collected "Mid-Quarter" groundwater samples from monitoring wells U1-CSS, MW-42-49, MW-50-66, and MW-53-120 on May 12 & 13, 2008 and September 5 & 8, 2008 to evaluate the associated subsurface impact of fuel removal activities.
30 Entergy undertook refueling activities at Unit 2 between March 25, 2008 and April 9, 2008. GZA therefore collected additional "Mid-Quarter" groundwater samples on May 30, June 6, & June 9, 2008 and August 30, September 2, 3, & 4, 2008 from monitoring wells MW-30-69, MW-30-84, MW-31-49, MW-31-63, MW-31-85, MW-32-59, MW-32-85, MW-33 and MW-111 to provide additional data pursuant to ongoing analyses relative to the potential for a remaining leak in the Unit 2 SFP. GZA also collected samples on May 30 and at the following Upgradient and Southern Boundary Wells: MW-40-100, MW-40-127, MW-51-40, MW-51-79, and MW-107.

- Re-sample the location to verify the result;
- Increase the frequency of sampling for this location;
- Initiate an investigation utilizing Entergy's corrective action program and related resources as appropriate (e.g. site engineering / radiation protection); and
- Initiation of source/ground water remediation techniques commensurate with the potential dose impact analyses and good environmental stewardship.

3.5 Boundary Investigation Levels

A comparison of the Q3 2008 and Pre-Q3 Mid Quarter[31] analytical results for the On and Off-Site Boundary Wells to their respective I.L. values shows that the I.L.s were not met for any of the monitoring locations. Therefore, there was no cause to further investigate radionuclide activity in these wells.

3.5.1 SSC Investigation Levels

For the SSC monitoring wells, a comparison of the Q3 2008 and Mid-Quarter analytical results to their respective I.L. values shows that the I.L.s were initially met in six samples. Two of these samples (MW-63-18 and MW-63-174) were reanalyzed, and the results were found to no longer meet I.L.s. In addition, one sample that did not initially meet I.L., but was close (MW-36-52), was also reanalyzed. The second analysis did meet I.L. The table below lists the cases where the I.L.s were met and also presents the reanalyzed results.

WELL ID	RADIONUCLIDE	RESULT (PCI/L)	REANALYZED RESULT (PCI/L)	INVESTIGATION LEVEL (PCI/L)
MW-31-85	Tritium	8340	NA*	6420
MW-36-24	Tritium	1020	NA*	572
MW-36-52	Sr-90	4.19	5.67	4.88
MW-42-49	Tritium	13200	NA*	3450
MW-42-49	Sr-90	296	NA*	97.1
MW-63-18	Sr-90	3.29	ND**	2.00
MW-63-174	Sr-90	2.79	ND**	2.00

*NA indicates that the sample was not reanalyzed.
**ND indicates that the radionuclide was not detected greater than or equal to the MDC and 3 times the 1 sigma uncertainty.

The initial positive Strontium results for samples MW-63-18 and MW-63-174 were unexpected given the location of MW-63 as well as recognition that the previous results for these locations all yielded non-detectable levels for Strontium. As shown in the table, the re-analysis of these samples yielded non-detect for Strontium, as is consistent with the trend for both of these locations. MW-36-52 yielded an initial positive result for Strontium which was below its I.L. However, this sample was also reanalyzed given that the initial result was close to the I.L. Upon reanalysis, this location yielded a result somewhat above the I.L. and is therefore also discussed below.

31 GZA collected samples on May 30 from select Upgradient and Southern Boundary Wells (MW-40-100, MW-40-127, MW-51-40, MW-51-79, and MW-107) as part of the increased sampling frequency associated with Unit 2 refueling and Unit 1 final fuel removal.

IPEC00201749

The remaining five samples where the I.L.s ultimately were met are discussed individually below:

MW-31-85. This sampling location exceeded it's I.L. by about 30 percent. In addition, the other two more shallow sampling levels at this location (MW-31-49 and MW-31-63) also show more recent increases in Tritium levels (although not above their respective I.L.s). Given that these increasing levels come after the 2008 refueling event, it would not be unreasonable to conclude that the refueling is responsible for the increases observed. However, when the all of the historic data are reviewed for all three sampling levels, it is clear that a similar Tritium "peak" was detected last year over approximately the same time frame. Given that there was no refueling of Unit 2 in 2007, it appears that the peak is more likely due to interaction of seasonal precipitation events with the retention mechanisms discussed in the Hydrogeologic Site Investigation Report[32], although the precise mechanism isn't yet fully understood. Notwithstanding this conclusion, this sampling location will be subject to additional scrutiny going forward.

MW-36-24. While the Q3 2008 tritium result for MW-36-24 is nearly twice its I.L., it is also lower than the previous value by over a factor of two. As such, the Tritium values are decreasing at this location. In addition, the actual tritium magnitude is also very low when compared to historic values, which are representative of known Unit 2 SFP leakage (prior to interdictions by Entergy)[33]. It is also instructive to note that the deeper monitoring interval at the MW-36 location continues to exhibit a generally stable to decreasing trend. Finally, tritium activities measured immediately upgradient do not show any significant increasing tritium trends. To the contrary, the upgradient data show significant overall decreasing tritium trends relative to conditions known to be indicative of fuel pool leakage[34].

These data, when viewed in the context of the Conceptual Site Model, indicate that the Q1 2008 and Q3 2008 detections of tritium above the I.L. for this location do not indicate a new leak in the monitored SSCs. Rather, they are likely the result of natural transient variability in the groundwater system, at least a portion of which is attributable to the interaction of precipitation events with the retention mechanisms discussed in the Hydrogeologic Site Investigation Report. Moreover, the fact that the I.L. was exceeded by nearly a factor of four for Q1 2008 and a factor of two for Q3 2008, leads to the further conclusion that the original quantitative levels set for the I.L.s need to be re-evaluated[35].

MW-36-52. There are two equally valid results for Q3 Strontium levels at this location. The initial result was below its I.L. and shows the beginning of a decreasing trend, while the reanalysis was above I.L. and indicates the continuance of an increasing trend. The upper sampling intervals for the MW-36 monitoring installation provide no clarification pursuant to the "more correct" result for MW-36-52. The interval in the bedrock immediately above has been

---

32 It is also noted that MW-111 and MW-33, located downgradient of MW-31, also show recent small increases which may be a reflection of the same seasonal variation.

33 Tritium levels over an order of magnitude higher (greater than 30,000 pCi/L) than the current Q3 2008 value were measured in early 2006.

34 For example, MW-111, MW-33 and MW-35 located immediately upgradient of MW-36 and towards the Unit 2 SFP, show overall downward trends of nearly an order of magnitude since the middle of 2006 (it is also noted, however, that MW-111 and MW-33 do show small increases recently which may be related to seasonal variation, as discussed above relative to MW-31).

35 The I.L.s were generally set equal to two times the yearly average for the previous year. It was recognized that a factor of two may not be sufficient to separate the initial indication of a new leak from the natural variability of the groundwater system, thus resulting in numerous false positives. However, it was decided to initially bias the I.L.s low to be conservative while the level of natural variability was being quantitatively characterized using the quarterly data collected over time.

destroyed and the shallowest interval is completed in soil backfill and exhibits non-detected levels of Strontium.

All three sampling depths for the monitoring installation immediately upgradient (MW-55) show decreasing Strontium levels. The closest downgradient monitoring installation (MW-37) also exhibits a decrease in Strontium level for Q3 (after a generally increasing trend) at the same elevation in the bedrock. The Q3 value is below the previous four values for this sampling point (MW-36-52 and MW-37-57 are located on either side of the Discharge Canal and both are below the bottom of the Canal). The 40-foot monitoring elevation immediately above the 57-foot depth in MW-37 shows an overall, generally decreasing trend[36]. Finally, the two monitoring installations located on either side of the Canal and just to the south of MW-36 (MW-50 and MW-49) also currently show generally decreasing Strontium levels[37]. Therefore, the data generally indicates that, of the two results for MW-36-52, it is more likely that the lower Strontium level best represents the behavior of this portion of the overall Unit 1 plume. However, this sampling location will again be scrutinized in Q4, particularly given the recent fuel removal activities at Unit 1.

While it is not at all certain that Strontium levels at MW-36-52 are not increasing, it is clear that the basis for the I.L.s needs to be reassessed relative to the current generation of false positives. In this specific case, it is not natural subsurface variability that has caused the false positive. Rather, it is variability inherent in the laboratory procedures given that the second result is just a reanalysis of an aliquot of the same single sample collected from MW-36-52 on July 24, 2008.

MW-42-49. As discussed above, water levels were increased during late April 2008 in the Unit 1 SFPs as part of the process for final fuel removal for ISFSI storage. As anticipated based on previous work, increased leakage at high water was observed, particularly from the transfer canal. As such, it was expected that radionuclide levels would increase downgradient of Unit 1. Therefore, Mid Quarter samples were taken both before and after the August Q3 samples. It was anticipated that at least increased Tritium levels[38] would be observed shortly after raising of pool levels (i.e., in the Pre-Q3 Mid Quarter samples). However, the expected increase was not observed until the post-Q3 Mid Quarter samples. These samples yielded an abrupt Tritium level increase to nearly four times the I.L. for MW-42-49. Strontium levels also increased abruptly to three times the I.L.[39] at this location.

Three critical conclusions can be drawn from these data: 1) the current Conceptual Site Model for the IPEC site provides a good basis for the design of the Long Term Monitoring Program; 2) significant new leaks from the Unit 1 SFPs are readily detected by the current Long Term Monitoring Program; and 3) increases in radionuclide levels following a documented leak take longer to materialize in the groundwater than might otherwise be expected[40].

---

36 It is noted, however, that the two shallowest depths in MW-37 show variable, but stable to increasing Strontium levels relative to Q1 08, but still lower than previously recorded.

37 Four of the five sampling locations show decreasing Strontium levels and one location (MW-50-42) shows a recently increasing level after a previously decreasing trend.

38 It was unclear if increased Strontium levels should be expected given Entergy's demineralization of the pools prior to raising the water levels. In fact, the previously enhanced demineralization, begun in April 2006, was resulting in a consistent decrease in Strontium levels in MW-42-49.

39 As indicated, Strontium levels also increased even though the SFPs were being aggressively demineralized. This result is not unexpected given that the increase in leakage rate, even at reduced Strontium levels, could result in increased groundwater Strontium levels due to additional partitioning from the solid subsurface materials back into the groundwater.

40 As part of the Unit 1 fuel removal process, increased sampling frequency was also performed at downgradient locations in addition to MW-42-49. These locations (U1-CSS, MW-50-66, and MW-53-120) have not yet shown an increase in Tritium or

3.5.2 Conclusions - Boundary and SSC Leak Detection Monitoring

Recognizing that measured activities in the Off-Site and On-Site Boundary Wells did not meet I.L. levels, this overall data set demonstrates that radionuclides are not migrating off of the property to the North, East or South, as expected given groundwater flow directions towards the power block area. Relative to Unit 2, radionuclide levels in some wells met their respective I.L.s. However, given the analyses discussed above, there is no compelling reason to believe that any new leaks have developed in the SSCs monitored. The same conclusion also applies to Unit 3 where no radionuclide levels met their I.L.s. Increased leakage was anticipated during final fuel removal from Unit 1 SFPs. This leakage was readily detected by the Long Term Monitoring Program.

Since inception of the Long Term Monitoring Program, it has been observed that I.L.s have been routinely exceeded in a number of cases where subsequent data have demonstrated that no new leaks have occurred. The majority of these cases occur where the radionuclide levels are generally low and/or near their detection limits. It appears that data variability, likely due to seasonal precipitation influences, is the cause of these false positives. Analysis of the false positives indicate that, for these cases, I.L.s equal to twice the previous yearly average are clearly too low. Uncorrected, this condition is likely to prove detrimental over time relative to the overall intent of establishing the I.L.s for leak detection. While simply increasing the I.L.s to a greater multiple of the yearly average would likely be appropriate for these cases, it would result in I.L. levels that are too high for locations with higher levels of residual contamination. Therefore, the basis upon which the I.L levels are computed needs to be re-evaluated in light of the natural transient variability of the groundwater system in response to precipitation events.

3.6 Plume Natural Attenuation Monitoring

The fourth and final objective of the Long Term Monitoring Program is to evaluate if the groundwater plumes identified on-Site demonstrate overall reductions in total activity over time, as is consistent with the requirements of Monitored Natural Attenuation (MNA)[41], the selected remediation for the IPEC Site.

Given the likely ages of the leaks identified and characterized during the hydrogeologic investigation, it is probable that the Unit 2 (Tritium) and Unit 1 (Strontium) plumes had reached steady state conditions prior to the beginning of the quarterly monitoring. Given that: 1) the identified leaks in the Unit 2 SFP have all been previously repaired, and: 2) the water in the Unit 1 West Pool underwent intensified demineralization (with a reduction in Strontium levels of over 95 percent), it would be expected that the plumes should have started to attenuate with time. While both plumes have generally shown significant levels of attenuation *as* compared to the highest levels measured during the two-year hydrogeologic investigation period[42], it was expected that the plumes would *not* show substantial additional attenuation during the shorter

---

Strontium levels, perhaps with the exception of U1-CSS where Strontium levels appear to show a small increase. The NCD and the SFDS were also monitored during this time. The NCD may have shown an increase in both Tritium and Strontium associated with the fuel removal, but the data is too variable over time for a peak to be clearly discerned without additional data going forward to see if the apparent decreasing trend is consistent over time. The SFDS does not appear to show either a Tritium or Strontium peak associated with fuel removal.

41 The selection of MNA as the remediation for the Site is more fully discussed in the Hydrogeologic Site Investigation Report.

42 See data and discussion presented in the Hydrogeologic Site Investigation Report. It is also important to note that while the Unit 1 plume has generally shown an overall reduction in Strontium levels, MW-42 has recently peaked at Strontium and Tritium levels above those previously observed. This is as was expected given the increased leak rate during final fuel removal. It is anticipated that plume levels will generally increase with time due to this perturbation before resuming their overall downward trend.

time frames subsequent to the source interdictions implemented by Entergy[43]. As predicted, Q3 2008 quarterly data indicate that the Unit 2 Tritium and Unit 1 Strontium plumes have remained relatively stable to decreasing over the monitoring period, when the plumes are viewed in their entirety.

On a smaller scale however, it was previously observed in 2007 and Q1 08 that some vertical intervals in monitoring installations MW-37, MW-49 and MW-50, as well as those downgradient along the plume migration pathway (MW-66 and MW-67), were apparently showing an increasing trend in Strontium levels, with a number of intervals yielding the highest levels ever recorded during Q4 07 or Q1 08. This observed behavior was attributed to either 1) the residual downgradient response to a previous (2005) transient increase in Unit 1 pool leakage rate due to a required short-term rising of water levels in the Unit 1 SFPs; and/or precipitation induced natural variability. Subsequent samples from these wells, however, have now exhibited decreased Sr-90 activity relative to peak values. As originally stated in the Hydrogeologic Site Investigation Report, it is to be anticipated that contaminant concentrations in individual monitoring wells will fluctuate over time (increasing at times as well as decreasing, as potentially related to precipitation events), and that future short-term increases in concentrations do *not*, in and of themselves, indicate a new leak. In addition, it is also expected that some areas within the plumes will exhibit faster decay rates than others. Both behaviors are commonly observed throughout the industry with groundwater contamination sampling and analyses, and therefore, conclusions pursuant to plume behavior must be evaluated in the context of all of the Site-wide monitoring data. Given the above, ultimate confirmation of plume attenuation will require monitoring over a number of years to allow ranges in seasonal variation to be adequately reflected in the monitoring data. Overall, however, GZA believes that the continuing monitoring will further demonstrate decreasing long term trends in groundwater contaminant concentrations over time given the source interdictions completed by Entergy.

3.7 Tracer (Fluorescein) Analyses

As one portion of the geohydrological investigations performed for the IPEC site, GZA, on behalf of Entergy, conducted an extensive tracer study in the vicinity of the Unit 2 SFP. The testing was initiated on February 8, 2007 with the injection of fluorescein dye into the vadose zone at the top of bedrock immediately adjacent to MW-30. Routine groundwater sampling and analyses were conducted through approximately June, 2007[44], with the results presented in the January, 2008 Final Investigation Report.

In an effort to provide further data with which to continue testing the validity of the current CSM, additional groundwater samples were collected and analyzed for fluorescein concentrations during the Q3 2008 sampling round. A summary of the results of the fluorescein analyses is presented in **Table 6.** These data, as discussed below, continue to support the existence of

43 In the case of the Unit 2 Tritium plume, it has been demonstrated that vadose zone storage mechanisms result in protracted release of Tritium to the groundwater after the physical leaks have been repaired. This conclusion is further supported by the recent tracer data collected as part of Q3 monitoring (see subsequent section). In the case of the Unit 1 Strontium plume, Strontium partitioning would be expected to slow plume attenuation via desorption of Strontium from the geologic deposits back into the groundwater.

44 Additional more limited sampling was conducted through approximately August 2007. However, the "current" sampling data presented in the Final Report (as Figure 7.3) was through June 2007 to take advantage of the increased number of sampling locations up to that time.

storage/retention mechanisms, which result in the observed decreased rate of reduction of Tritium concentrations over time[45].

As discussed in the Final Report, the Unit 2 Tritium plume has decreased in concentration relative to the samples taken just after identification of the 2005 shrinkage crack leak[46], and continues to show a general trend of decreasing concentrations over time. However, the plume still exhibits concentrations greater than would be expected if there were no further Tritium inputs to the groundwater; i.e., the plume would attenuate more quickly than observed[47]. This reduced rate of Tritium decrease over time can be explained by either: 1) an ongoing small leak in the IP2 SFP; 2) a "retention mechanism" in the saturated and unsaturated zones under the IP2-SFP that can retain substantial volumes of tritiated water for substantial amounts of time[48]; and/or 3) a combination of the above.

While Tritium concentrations in the groundwater plume could be impacted by both an ongoing leak and the retention mechanisms cited above, tracer concentrations in the groundwater can not be replenished by SFP leakage. Given the elapsed time of approximately one and a half years from the initial tracer injection, it would be expected that all of the tracer would have been flushed from the groundwater flow system if the released tracer resided only within the groundwater flow system. As shown in Figure 9 and discussed below, significant tracer still remains.

Figure 9 is patterned after Figure 7.3 from the Final Investigation Report. For Figure 9, the "current tracer concentration isopleths" reflect an August 2008 sampling date rather than the then current June 2007 date cited in Figure 7.3; over one year later. As compared to that shown on Figure 7.3, the current tracer plume shows reduced concentrations proximate to the IP2 SFP, but also shows that the plume length has extended along the Tritium plume alignment all the way to the river. Additional, more detailed analysis of the information reveals that:

- To the extent defined by this more limited data set, the general plume shape has remained approximately the same, with additional elongation towards the river;
- Although reduced in magnitude, the current concentrations generally match the relative trends exhibited previously; i.e., pursuant to variation between proximate locations and over depth at individual locations. For example, the middle sampling zone in MW-31 still shows the highest concentration for this location, followed by the lowest zone and then the uppermost zone[49]; and
- Water was found in the vadose zone above the top packer in RW-1. This "trapped water" was sampled and yielded a very high tracer concentration (39,000 ppb as compared to the highest concentration detected in the groundwater over the entire test duration; i.e., 49,000 ppb in MW-32 near the very beginning of the testing. This data

45 Decreased rate as compared to the case where there are no continuing additions of Tritium to the groundwater flow regime from the vadose zone.
46 The earliest samples taken from directly below the SFP in MW-30 (open borehole and packer testing samples) yielded Tritium concentrations over 600,000 pCi/L. More currently, maximum concentrations detected have been below one-half of those initial concentrations.
47 Rapid attenuation of the Tritium plume would be expected based on 1) Tritium's lack of partitioning to solid materials in the subsurface; and 2) the crystalline nature, low storativity and high groundwater gradients associated with the bedrock on the Site.
48 This hypothesized "retention mechanism" is supported by our understanding of the SFP construction methods, evaluations of contaminant concentration variability trends over short timeframes and precipitation events, as well as the original tracer test results, as further described in Sections 7.0 and 8.0 of the Final Report.
49 As provided in the figure legend, the tracer concentrations for the "June 2007 current plume" are provided to the left of the bar graphs for each sampling depth.

IPEC00201754

point clearly shows that "dead end fractures" have the capacity to store substantial contaminant concentrations over relatively long periods of time.

Overall, these findings from the most recent tracer sample analyses are consistent with the previous tracer data, and the associated conclusions presented in the Final Investigation Report. As such, the current demonstration that the tracer persists in the groundwater flow regime over even much longer time frames now provides even stronger support for the existence of "retention mechanisms," as posited by existing the CSM for the IPEC site. In fact, a direct analog for "contaminant storage in dead-end bedrock fractures" is provided by the high tracer concentrations found above the upper packer in the vadose zone in RW-1. Therefore, given that tritiated water behaves much as the tracer does, it should be expected that once Tritium has been released from the SFP it becomes "trapped" (held in storage) and is slowly released to the groundwater flow regime over substantial periods of time. These retention mechanisms therefore act as a continuing source to the groundwater and thus can explain the observed slow rate of Tritium concentration reduction in the Unit 2 plume. Therefore, the persistence of the Unit 2 Tritium plume does not, in and of itself, demonstrate that the Unit 2 SFP must still be leaking. In fact, the currently observed behavior was predicted in the Final Investigation Report based on the then available data.

4.0 CONCLUSIONS AND PLANNED ACTIVITIES

Evaluation of data collected during Q3 2008 has shown the following:

- While Investigation Levels have been met at a number of locations, there is no evidence of new leaks from the systems, structures, or components monitored, with the exception of the anticipated additional leakage from the Unit 1 SFPs. Based on past work, additional leakage was expected during the raising of water levels in these pools for final fuel removal to ISFSI storage. This leakage was, in fact, detected as pronounced increases in Tritium and Strontium in the monitoring location closest to Unit 1. As such, these data support the validity of the current Conceptual Site Model for use as a basis for Long Term Monitoring Program design;
- The most current groundwater flux computations (Q2 and Q3 08) show an overall increase in the total groundwater flow through the Site. This is as would be expected given the increased precipitation values and snow/frost melt over this time period. The continuing calibration of the Precipitation Mass Balance Model indicated that the groundwater flux values calculated have routinely been generally consistent with that predicted using the Darcy Law Model, given anticipated seasonal precipitation variability;
- The overall H3 and Sr-90 activity within the Unit 2 and Unit 1 plumes is generally stable or decreasing, with the anticipated exception of the increases in the immediate vicinity of the Unit 1 SFPs due to final fuel removal. With all the water now removed from these SFPs, it is anticipated that increased radionuclide levels will move downgradient through the plume, with a return over time to the previous overall decreasing trend; and
- Based on the results and evaluation of the Q3 2008 groundwater monitoring within the context of the long term monitoring program, IPEC plans to continue routine groundwater sampling and related maintenance during Q4 2008. In addition, GZA recommends that the basis for establishing Investigation Levels be re-evaluated in light of the large number of false positives observed.

TABLES

Table 1 Groundwater Sampling Methods, Equipment, Frequency, and Depths

Table 2 2008 2nd and 3rd Quarter Low Tide Groundwater Elevations

Table 3 2008 3rd Groundwater Analytical Results and Averages

Table 4 2008 3rd Quarter Groundwater Analytical Results

Table 5 Historic Groundwater Analytical Results

Table 6 Current Tracer (Fluorescein) Analytical Results

TABLE 1
GROUNDWATER SAMPLING METHODS, EQUIPMENT, FREQUENCY AND DEPTHS
INDIAN POINT ENGERGY CENTER
BUCHANAN, NY

Well ID[1]	Sampling Method	Sampling Equipment Used	2008 Sampling Frequency[2]	SAMPLING INTERVAL[3]				SAMPLING DEPTH[4]	
				Ft Below Top of Casing		Elevation in Feet msl			
				Top	Bottom	Top	Bottom	Feet Below TOC	Elevation in Feet msl
MW-30-69	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	67.3	71.3	8.4	4.4	69.3	6.4
MW-30-84	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	77.3	85.4	-1.6	-9.5	83.8	-8.1
MW-31-49	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	34.8	49.3	40.8	26.3	48.8	26.8
MW-31-63	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	55.3	63.8	20.3	11.8	63.3	12.3
MW-31-85	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	69.8	85.4	5.8	-9.6	84.8	-9.2
MW-32-59	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	28.3	61.3	48.8	15.8	58.8	18.3
MW-32-85	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	79.3	92.8	-2.2	-15.7	85.3	85.3
MW-32-131	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	125.8	138.3	-48.7	-61.2	130.8	-53.7
MW-32-149	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	125.8	156.8	-70.2	-79.7	149.3	-72.2
MW-32-173	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	165.8	174.3	-88.7	-97.2	172.8	-95.7
MW-32-190	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	180.3	193.9	-103.2	-116.8	190.3	-113.7
MW-33	Low Flow	Peristaltic Pump	Annually	8.0	30.0	10.6	-11.7	16	2.8
MW-34	Low Flow	Peristaltic Pump	Inactive	5.0	30.0	13.5	-11.5	16.5	2.0
MW-35	Low Flow	Peristaltic Pump	Annually	6.5	30.0	12.1	-11.4	15.0	3.6
MW-36-24[5]	Low Flow	Peristaltic Pump	Quarterly	11.0	24.0	0.8	-12.2	17.0	-5.2
MW-36-41	Modified Well Vol. Purge	Peristaltic Pump	Inactive	36.0	41.0	-24.2	-29.2	37.0	-25.2
MW-36-52	Modified Well Vol. Purge	Peristaltic Pump	Quarterly	48.0	53.0	-36.2	-41.2	50.0	-38.2
MW-37-22	Low Flow	Peristaltic Pump	Quarterly	12.0	22.0	3.0	-7.0	17.0	-2.0
MW-37-32	Low Flow	Peristaltic Pump	Quarterly	28.0	32.5	-13.0	-17.5	29.0	-14.0
MW-37-40	Modified Well Vol. Purge	Peristaltic Pump	Quarterly	38.5	40.5	-23.5	-24.5	39.0	-24.0
MW-37-57	Low Flow	Peristaltic Pump	Quarterly	52.0	57.0	-37.0	-42.0	55.0	-40.0
MW-38	Low Flow	Peristaltic Pump	Inactive	5.0	40.0	9.3	-25.7	25.4	-11.1
MW-39-67	Waterloo Low Flow	Waterloo Multilevel System	Bi-Annually	65.0	70.5	15.0	9.5	67.0	13.0
MW-39-84	Waterloo Low Flow	Waterloo Multilevel System	Bi-Annually	76.5	85.0	3.5	-5.0	83.5	-3.5
MW-39-102	Waterloo Low Flow	Waterloo Multilevel System	Bi-Annually	93.0	103.0	-13.0	-23.0	101.5	-21.5
MW-39-124	Waterloo Low Flow	Waterloo Multilevel System	Bi-Annually	115.0	126.5	-35.0	-46.5	124.0	-44.0
MW-39-183	Waterloo Low Flow	Waterloo Multilevel System	Bi-Annually	169.5	186.0	-89.5	-106.0	182.5	-102.5
MW-39-195	Waterloo Low Flow	Waterloo Multilevel System	Bi-Annually	193.0	198.6	-113.0	-118.4	195.0	-115.0
MW-40-27	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	18.2	35.2	55.0	38.0	26.7	46.5
MW-40-46	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	44.2	53.7	29.0	19.5	46.2	27.0
MW-40-81	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	64.7	84.2	8.5	-11.0	80.7	-7.5
MW-40-100	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	93.2	106.7	-20.0	-33.5	100.2	-27.0
MW-40-127	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	125.2	136.7	-52.0	-63.5	127.2	-54.0
MW-40-162	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	158.7	190.3	-85.5	-116.9	161.7	-88.5
MW-41-40	Low Flow	Peristaltic Pump	Bi-Annually	22.0	42.0	32.9	12.9	36.0	18.9
MW-41-63	Modified Well Vol. Purge	Waterra Pump	Bi-Annually	59.0	64.0	-4.1	-9.1	61.0	-6.1
MW-42-49	Low Flow	Submersible Pump	Quarterly	31.0	51.0	38.7	18.7	41.0	28.7
MW-42-78	Modified Well Vol. Purge	Waterra Pump	Quarterly	69.0	79.0	0.7	-9.3	74.0	-4.3
MW-43-28	Low Flow	Submersible Pump	Bi-Annually	8.0	28.0	40.8	20.7	23.0	25.8
MW-43-62	Low Flow	Submersible Pump	Bi-Annually	42.0	62.0	6.8	-13.2	54.0	-5.2
MW-44-66	Modified Well Vol. Purge	Submersible Pump	Quarterly	52.0	67.0	41.5	26.5	63.0	30.5
MW-44-102	Modified Well Vol. Purge	Waterra Pump	Quarterly	79.0	104.0	14.5	-10.5	80.0	13.5
MW-45-42	Low Flow	Peristaltic Pump	Quarterly	27.5	42.5	26.2	11.2	37.0	16.6
MW-45-61	Low Flow	Peristaltic Pump	Quarterly	51.5	61.5	2.2	-7.8	58.0	-4.4
MW-46	Low Flow	Submersible Pump	Quarterly	6.0	30.0	12.1	-11.9	10.5	7.6
MW-47-56	Low Flow	Submersible Pump	Inactive	36.0	56.0	34.3	14.3	52.0	18.3
MW-47-80	Modified Well Vol. Purge	Waterra Pump	Inactive	70.0	80.0	0.3	-9.7	72.0	-1.7

See Page 3 for Notes

IPEC00201758

TABLE 1
GROUNDWATER SAMPLING METHODS, EQUIPMENT, FREQUENCY AND DEPTHS
INDIAN POINT ENGERGY CENTER
BUCHANAN, NY

Well ID[1]	Sampling Method	Sampling Equipment Used	2008 Sampling Frequency[2]	SAMPLING INTERVAL[3]				SAMPLING DEPTH[4]	
				Ft Below Top of Casing		Elevation in Feet msl			
				Top	Bottom	Top	Bottom	Feet Below TOC	Elevation in Feet msl
MW-48-23	Low Flow	Peristaltic Pump	Inactive	8.0	23.0	7.4	-7.6	15.8	-0.4
MW-48-37	Low Flow	Peristaltic Pump	Inactive	33.0	38.0	-17.6	22.6	35.8	-20.4
MW-49-26	Low Flow	Peristaltic Pump	Quarterly	15.0	25.0	-0.3	-10.4	20.0	-5.3
MW-49-42	Low Flow	Peristaltic Pump	Quarterly	32.0	42.0	-17.4	-27.4	37.0	-22.3
MW-49-65	Low Flow	Peristaltic Pump	Quarterly	60.0	65.0	-45.4	-50.4	61.0	-46.4
MW-50-42	Low Flow	Peristaltic Pump	Quarterly	22.0	42.0	-7.1	-27.1	27.0	-12.1
MW-50-66	Low Flow	Peristaltic Pump	Quarterly	62.0	67.0	-47.1	-52.1	60.0	-45.1
MW-51-40	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	29.7	44.2	38.0	23.5	39.7	28.0
MW-51-79	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	63.2	81.2	4.5	-13.5	78.7	-11.0
MW-51-104	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	101.2	111.2	-33.5	-43.5	103.7	-36.0
MW-51-135	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	130.2	143.7	-62.5	-76.0	135.2	-67.5
MW-51-163	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	154.7	166.2	-87.0	-98.5	162.7	-95.0
MW-51-189	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	184.2	197.8	-116.5	-129.9	189.2	-121.5
MW-52-11	Modified Well Vol. Purge	Peristaltic Pump	Annually	2.0	12.0	14.8	4.8	10.0	6.8
MW-52-18	Waterloo Low Flow	Waterloo Multilevel System	Annually	10.0	30.0	4.9	-15.1	17.5	-2.6
MW-52-48	Waterloo Low Flow	Waterloo Multilevel System	Annually	48.0	56.0	-33.1	-41.1	48.0	-33.1
MW-52-64	Waterloo Low Flow	Waterloo Multilevel System	Annually	59.0	71.5	-44.1	-56.6	64.0	-49.1
MW-52-122	Waterloo Low Flow	Waterloo Multilevel System	Annually	110.5	123.5	-95.6	-108.6	122.0	-107.1
MW-52-162	Waterloo Low Flow	Waterloo Multilevel System	Annually	154.5	164.0	-139.6	-149.1	161.5	-146.6
MW-52-181	Waterloo Low Flow	Waterloo Multilevel System	Annually	171.0	198.1	-156.1	-183.0	181.0	-166.1
MW-53-82	Low Flow	Submersible Pump	Quarterly	62.0	82.0	8.3	-11.7	75.0	-4.7
MW-53-120	Modified Well Vol. Purge	Waterra Pump	Quarterly	100.0	120.0	-29.7	-49.7	105.0	-34.7
MW-54-37	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	29.0	42.0	-15.9	-28.9	36.5	-23.4
MW-54-58	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	51.5	64.0	-38.4	-50.9	57.5	-44.4
MW-54-123	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	116.0	126.0	-102.9	-112.9	123.0	-109.9
MW-54-144	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	135.0	155.5	-121.9	-142.4	144.0	-130.9
MW-54-173	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	170.5	182.0	-157.4	-168.9	172.5	-159.4
MW-54-190	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	185.0	203.6	-171.9	-190.3	190.0	-176.9
MW-55-24	Low Flow	Peristaltic Pump	Quarterly	14.0	24.0	4.3	-5.8	16.0	2.3
MW-55-35	Low Flow	Peristaltic Pump	Quarterly	30.0	35.0	-11.8	-16.8	32.0	-13.8
MW-55-54	Low Flow	Peristaltic Pump	Quarterly	44.0	54.0	-25.8	-35.8	47.0	-28.8
MW-56-53	Low Flow	Submersible Pump	Bi-Annually	49.2	54.2	21.0	16.0	52.0	18.3
MW-56-83	Modified Well Vol. Purge	Waterra Pump	Bi-Annually	69.9	84.9	0.4	-14.6	74.0	-3.7
MW-57-11	Low Flow	Peristaltic Pump	Bi-Annually	6.0	11.0	9.0	4.0	10.0	5.0
MW-57-20	Low Flow	Peristaltic Pump	Bi-Annually	15.5	20.5	-0.5	-5.5	19.0	-4.0
MW-57-45	Low Flow	Peristaltic Pump	Bi-Annually	30.5	45.5	-15.5	-30.5	40.0	-25.0
MW-58-26	Low Flow	Peristaltic Pump	Bi-Annually	16.0	26.0	-1.4	-11.4	20.0	-5.4
MW-58-65	Low Flow	Peristaltic Pump	Quarterly	50.0	65.0	-35.4	-50.4	54.0	-39.4
MW-59-32	Low Flow	Peristaltic Pump	Inactive	21.0	31.0	-6.5	-16.5	27.0	-12.5
MW-59-45	Low Flow	Peristaltic Pump	Inactive	35.0	45.0	-20.5	-30.5	42.0	-27.5
MW-59-68	Low Flow	Peristaltic Pump	Inactive	53.0	68.0	-38.5	-53.5	58.0	-43.5
MW-60-35	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	24.9	39.4	-12.4	-26.9	34.9	-22.4
MW-60-53	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	45.4	59.4	-32.9	-46.9	53.4	-40.9
MW-60-72	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	66.4	78.9	-53.9	-66.4	72.4	-59.9
MW-60-135	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	124.9	141.4	-112.4	-128.9	134.9	-122.4
MW-60-154	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	147.4	164.9	-134.9	-152.4	154.4	-141.9
MW-60-176	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	170.9	200.4	-158.4	-187.8	175.9	-163.4

See Page 3 for Notes

IPEC00201759

TABLE 1
GROUNDWATER SAMPLING METHODS, EQUIPMENT, FREQUENCY AND DEPTHS
INDIAN POINT ENGERGY CENTER
BUCHANAN, NY

Well ID[1]	Sampling Method	Sampling Equipment Used	2008 Sampling Frequency[2]	SAMPLING INTERVAL[3]				SAMPLING DEPTH[4]	
				Ft Below Top of Casing		Elevation in Feet msl			
				Top	Bottom	Top	Bottom	Feet Below TOC	Elevation in Feet msl
MW-62-18	Low Flow	Peristaltic Pump	Quarterly	4.7	14.7	10.0	0.0	13.5	1.2
MW-62-37	Low Flow	Peristaltic Pump	Quarterly	33.3	38.3	-18.6	-23.6	34.5	-19.8
MW-62-53	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	49.6	54.1	-36.8	-41.3	53.1	-40.3
MW-62-71	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	61.1	82.6	-48.3	-69.8	71.1	-58.3
MW-62-92	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	88.6	99.1	-75.8	-86.3	91.6	-78.8
MW-62-138	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	126.1	143.6	-113.3	-130.8	138.1	-125.3
MW-62-182	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	177.6	198.7	-164.8	-185.7	182.1	-169.3
MW-63-18	Low Flow	Peristaltic Pump	Quarterly	8.0	18.0	-3.8	-13.8	14.9	0.7
MW-63-34	Low Flow	Peristaltic Pump	Quarterly	30.0	35.0	-15.8	-20.8	31.5	-17.3
MW-63-50	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	41.5	58.0	-29.2	-45.7	49.5	-37.2
MW-63-93	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	81.5	100.5	-69.2	-88.2	93.0	-80.7
MW-63-112	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	106.5	112.0	-94.2	-99.7	111.5	-99.2
MW-63-121	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	118.0	127.5	-105.7	-115.2	121.0	-108.7
MW-63-163	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	150.5	165.0	-138.2	-152.7	162.5	-150.2
MW-63-174	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	168.0	191.1	-155.7	-178.6	174.0	-161.7
MW-66-21	Low Flow	Peristaltic Pump	Quarterly	7.0	27.0	6.0	-7.0	14.1	0
MW-66-36	Low Flow	Peristaltic Pump	Quarterly	31.0	36.0	-17.0	-22.0	33.6	-19.5
MW-67-39	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	28.8	54.3	-15.8	-41.3	38.3	-25.8
MW-67-105	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	90.3	110.8	-77.3	-97.8	104.8	-92.3
MW-67-173	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	164.8	188.3	-151.8	-175.3	172.3	-159.8
MW-67-219	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	209.3	229.8	-196.3	-216.8	218.8	-206.3
MW-67-276	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	250.8	281.3	-237.8	-268.3	275.3	-262.8
MW-67-323	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	317.8	328.3	-304.8	-315.3	322.3	-309.8
MW-67-340	Waterloo Low Flow	Waterloo Multilevel System	Quarterly	335.3	347.9	-322.3	-334.9	339.8	-327.3
MW-107	Low Flow	Submersible Pump	Annually	105.1	126.1	34.9	13.9	32.7	110.1
MW-111	Low Flow	Peristaltic Pump	Bi-Annually	11.6	17.4	7.0	1.5	16.5	2.4
U3-4D	Low Flow	Peristaltic Pump	Quarterly	25.0	27.6	-10.2	-12.8	25.6	-10.8
U3-T1	Low Flow	Peristaltic Pump	Quarterly	0.2	1.2	3.1	2.1	5.7	2.8
U3-T2	Low Flow	Peristaltic Pump	Quarterly	0.6	1.6	2.7	1.7	5.7	2.6
U1-CSS	Low Flow	Peristaltic Pump	Bi-Annually	NA	10.2	NA	4.9	14.0	6.1
LAF-002	NA	NA	Bi-Annually	NA	NA	NA	NA	NA	-22.3
MH-5[6]	Grab	NA	Quarterly	NA	NA	NA	NA	NA	NA
B-1[6]	Grab	NA	Quarterly	NA	NA	NA	NA	NA	NA
B-6[6]	Grab	NA	Quarterly	NA	NA	NA	NA	NA	NA

Notes:

1. For nested multi-level monitoring wells, suffix of well ID indicates depth (rounded to nearest foot) from reference point on casing to bottom of well screen. For Waterloo multi-level systems, suffix indicates depth (rounded to nearest foot) from reference point on casing to top of sampling port. Well IDs without a suffix are open bedrock wellbores.
2. Sampling frequencies presented for 2008 are subject to change.
3. For nested multi-level monitoring wells, interval includes well screen and sand pack. For Waterloo multi-level systems, interval includes open wellbore between bottom of 1st packer above and top of 1st packer below sampling port. For open bedrock wellbores, interval extends from bottom of casing to bottom of hole.
4. Sampling depths within sampling intervals (i.e. location of pump intake) have been located adjacent to a transmissive zone where possible.
5. Dot pattern denotes sampling interval is positioned within overburden. Open box indicates sampling interval is in bedrock.
6. These locations are storm drains.

TABLE 2
QUARTERLY LOW TIDE GROUNDWATER ELEVATIONS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID	LOW RIVER TIDE GROUNDWATER ELEVATIONS (Feet msl)			
	Quarter 4[1], 2007	Quarter 1[2], 2008	Quarter 2[3], 2008	Quarter 3[4], 2008
HR1	-1.57	-2.15	-1.13	-1.05
I2	51.87	53.73	52.11	52.90
MW-30-69	12.00	NA	12.28	11.77
MW-30-84	12.83	NA	13.06	12.68
MW-31-49	45.40	47.50	46.14	45.39
MW-31-63	42.71	45.52	43.96	42.17
MW-31-85	40.81	43.19	41.89	40.58
MW-32-48	46.73	48.81	47.77	46.98
MW-32-59	45.99	47.99	46.75	45.72
MW-32-85	12.78	13.30	13.17	12.30
MW-32-131	13.21	25.01	15.67	11.34
MW-32-149	10.06	10.20	10.04	9.71
MW-32-173	9.86	9.92	9.70	9.45
MW-32-190	7.88	7.88	7.52	7.16
MW-33	10.38	11.49	11.66	10.55
MW-34	10.44	11.63	12.03	10.54
MW-35	10.37	11.65	12.06	10.68
MW-36-24	7.67	6.85	6.86	7.58
MW-36-52	6.45	6.42	6.29	6.99
MW-37-22	4.83	4.66	4.18	5.36
MW-37-32	4.82	4.63	4.05	5.36
MW-37-40	6.19	6.17	5.95	6.18
MW-37-57	6.39	6.28	6.07	6.61
MW-38	1.46	2.22	1.53	2.12
MW-39-67	26.84	32.20	31.69	25.96
MW-39-84	26.64	31.94	31.48	25.78
MW-39-100	26.38	30.99	31.34	25.52
MW-39-102	26.31	31.56	NA	NA
MW-39-124	26.05	28.37	30.67	25.07
MW-39-183	25.28	29.74	29.83	22.33
MW-39-195	24.36	28.80	28.89	23.35
MW-40-27	55.46	60.39	59.99	54.70
MW-40-46	53.19	59.35	59.09	52.57
MW-40-81	47.45	56.06	55.78	47.28
MW-40-100	45.18	54.10	53.75	44.83
MW-40-127	44.60	53.61	53.39	44.33
MW-40-162	41.09	50.49	50.26	41.32
MW-41-40	32.48	36.57	33.81	31.28
MW-41-63	27.77	33.31	32.76	27.53
MW-42-49	34.55	34.96	34.81	34.52
MW-42-78	35.71	36.63	36.28	35.38
MW-43-28	31.98	33.47	33.95	32.51
MW-43-62	NA	NA	32.16	30.48
MW-44-66	34.36	37.99	35.47	35.29
MW-44-102	24.84	NA	30.88	25.86
MW-45-42	28.47	34.19	37.16	28.63
MW-45-61	27.57	32.91	32.46	27.16
MW-46	12.57	15.05	14.97	12.62
MW-47-57	23.05	27.76	31.53	22.84
MW-47-80	21.82	26.53	28.35	21.52
MW-48-23	-0.39	-1.14	-0.23	-0.18
MW-48-38	-0.06	-0.18	0.32	0.06
MW-49-26	-0.37	-0.62	0.51	0.37
MW-49-42	0.40	-0.44	0.92	1.02
MW-49-65	0.34	0.07	0.70	0.68
MW-50-42	NA	NA	5.24	6.40
MW-50-66	NA	1.97	2.24	2.83
MW-51-40	50.07	51.95	52.35	49.44
MW-51-79	41.07	42.91	44.17	40.71
MW-51-102	38.07	38.46	39.04	36.56
MW-51-104	37.93	38.41	39.02	36.49
MW-51-135	39.47	39.99	40.71	38.10
MW-51-163	34.83	36.15	36.77	34.30
MW-51-189	30.16	31.34	31.79	29.65
MW-52-11	8.12	8.47	8.85	8.65
MW-52-18	8.63	6.04	6.07	5.89
MW-52-48	6.55	6.53	5.95	6.20
MW-52-64	5.90	5.25	5.03	5.21
MW-52-118	4.41	4.44	4.32	4.36
MW-52-122	4.26	4.32	4.18	4.21
MW-52-162	-0.80	-1.31	-0.80	-0.98
MW-52-181	-1.08	-1.56	-1.00	-1.30
MW-53-82	10.03	11.99	12.60	10.35
MW-53-120	9.59	10.87	11.49	9.76
MW-54-35	6.40	6.27	6.36	6.16
MW-54-37	6.58	6.45	6.53	6.30
MW-54-58	5.82	5.60	5.55	5.53
MW-54-123	4.16	3.65	3.52	4.01
MW-54-144	7.13	6.60	6.48	6.92
MW-54-173	3.52	2.99	2.85	3.27
MW-54-190	3.46	2.91	2.76	3.16
MW-55-24	7.97	8.17	8.16	8.18

See Page 2 for Notes

IPEC00201761

TABLE 2
QUARTERLY LOW TIDE GROUNDWATER ELEVATIONS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID	LOW RIVER TIDE GROUNDWATER ELEVATIONS (Feet msl)			
	Quarter 4[1], 2007	Quarter 1[2], 2008	Quarter 2[3], 2008	Quarter 3[4], 2008
MW-55-35	7.52	7.60	7.59	7.69
MW-55-54	7.75	8.08	8.32	8.22
MW-56-53	NA	NA	29.93	NA
MW-56-83	22.18	26.41	29.16	NA
MW-57-11	9.36	10.99	NA	10.03
MW-57-20	NA	NA	12.07	10.02
MW-57-45	NA	NA	10.59	NA
MW-58-26	6.58	8.32	NA	7.29
MW-58-65	6.22	NA	7.36	7.13
MW-59-32	0.67	0.42	0.77	0.81
MW-59-45	0.42	NA	9.23	NA
MW-59-68	1.97	0.90	-0.11	NA
MW-60-35	1.32	1.58	1.63	0.82
MW-60-53	-1.67	-2.04	-1.37	-1.76
MW-60-55	-0.73	-1.10	-0.47	-0.90
MW-60-72	-0.45	-0.68	-0.14	-0.64
MW-60-135	-0.44	-0.90	-0.27	-0.71
MW-60-154	-1.61	-2.07	-1.49	-1.91
MW-60-176	-2.03	-2.47	-1.82	-2.16
MW-62-18	-0.37	-0.79	0.13	0.06
MW-62-37	-0.03	-0.46	0.49	0.59
MW-62-52	-0.30	-1.13	-0.19	-0.29
MW-62-53	-0.25	-1.01	-0.10	-0.16
MW-62-71	-0.56	-1.26	-0.55	-0.56
MW-62-92	-0.09	-0.76	-0.11	-0.10
MW-62-138	0.09	-0.49	0.13	0.26
MW-62-181	-0.33	-0.99	-0.32	-0.36
MW-62-182	-1.83	-0.78	-1.29	-1.25
MW-63-18	-0.10	-0.37	0.09	0.32
MW-63-35	-0.09	-0.40	0.13	0.05
MW-63-50	-0.38	-1.03	-0.47	-0.55
MW-63-91	-0.19	-0.87	-0.25	-0.16
MW-63-93	-0.20	-0.87	-0.30	-0.24
MW-63-112	-1.46	-2.05	-1.69	-1.60
MW-63-121	-0.18	-0.78	-0.24	-0.05
MW-63-163	-0.83	-1.48	-0.86	-0.90
MW-63-174	-0.65	-1.29	-0.62	-0.61
MW-65-48	NA	NA	38.60	43.22
MW-65-80	NA	NA	34.97	32.95
MW-66-21	-0.22	-0.74	0.05	0.17
MW-66-36	-0.04	-0.51	0.35	0.15
MW-67-39	0.34	-0.33	0.36	0.41
MW-67-105	0.61	-0.04	0.57	0.65
MW-67-173	-0.14	-0.83	-0.28	-0.26
MW-67-219	-0.19	-0.91	-0.32	-0.32
MW-67-276	0.60	-0.13	0.44	0.41
MW-67-323	-0.96	-1.75	-1.13	-1.35
MW-67-340	-0.52	-1.31	-0.87	-0.96
MW-107	117.48	121.79	118.94	115.00
MW-108	8.77	9.98	10.07	NA
MW-109	7.22	9.50	10.12	7.82
MW-111	9.74	10.74	11.24	9.74
OUT1	1.16	0.76	0.81	NA
RW1	30.15	NA	30.04	29.52
U1CSS	NA	NA	19.11	15.39
U3-1	NA	NA	NA	NA
U3-2	NA	NA	NA	NA
U3-3	6.63	8.67	9.25	8.25
U3-4D	3.35	3.22	2.74	3.49
U3-4S	3.80	3.74	3.97	4.31
U3-C1	3.58	3.36	0.99	2.36
U3-T1	3.67	3.99	3.86	4.33
U3-T2	3.79	4.20	3.94	4.28

Notes:
NA: data not available

1. Quarter 4, 2007 groundwater elevations were measured on 12/9/07 at 4:15 am.
2. Quarter 1, 2008 groundwater elevations were measured on 1/3/08 at 1:14 a.m.
3. Quarter 2, 2008 groundwater elevations were measured on 4/4/08 at 5:14 pm.
4. Quarter 3, 2008 groundwater elevations were measured on 7/10/07 at 11:35 am.

See Page 2 for Notes

IPEC00201762

TABLE 3
2007-2008 GROUNDWATER ANALYTICAL RESULTS
AND AVERAGES
INDIAN POINT ENGERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLING QUARTER[2]	SAMPLE ID	SAMPLE ZONE CENTER, Depth Ft Below Top of Casing[3]	SAMPLE ZONE CENTER, Elevation Ft msl[3]	SAMPLE COLLECTION		ANALYSIS RESULTS															YEARLY ROLLING AVERAGES[4]					Well ID
							TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			TRITIUM (pCi/L)	Sr-90 (pCi/L)	Cs-137 (pCi/L)	Co-60 (pCi/L)	Ni-63 (pCi/L)	
					Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Average	Average	Average	Average	Average	
MW-30-69	3	009	69.3	0.4	7/25/2007	11:26	2.17E+05	6.51E+03	6.40E−02	1.00E-01	6.16E-01	4.13E-01	-1.13E−00	4.32E+00	3.95E+00	4.61E-01	2.81E+00	3.28E+00	NA	NA	NA	1.84E+05	ND[5]	ND	ND	NA	MW-30-69
	4	016			10/23/2007	11:48	1.32E+05	3.90E+03	4.24E−02	2.52E-01	6.16E-01	7.12E-01	2.42E+00	5.76E+00	4.45E+00	-5.09E-01	3.66E+00	3.86E+00	NA	NA	NA						
	1	017			2/4/2008	13:00	1.87E+05	5.51E+03	3.95E−02	1.57E-01	6.98E-01	8.57E-01	1.26E+00	3.05E+00	3.56E+00	-6.00E-01	3.63E+00	3.28E+00	NA	NA	NA						
	3	020			8/5/2008	11:22	1.99E+05	3.92E+03	4.95E−02	2.09E-01	3.07E-01	5.34E-01	-1.57E-01	1.42E+00	2.38E+00	1.11E+00	1.28E+00	2.33E+00	NA	NA	NA						
MW-30-84	3	006	83.8	-8.1	7/25/2007	13:00	5.02E+03	4.49E+02	2.43E−02	1.56E-01	3.09E-01	3.48E-01	2.83E+00	3.38E+00	2.84E+00	2.03E+00	2.91E+00	3.57E+00	NA	NA	NA	4.49E+03	5.95E-01	ND	ND	ND	MW-30-84
	4	007			10/23/2007	12:49	4.27E+03	7.38E+02	4.03E−02	5.95E-01	5.53E-01	5.59E-01	1.56E+00	2.81E+00	3.38E+00	-1.17E+00	3.72E+00	3.27E+00	NA	NA	NA						
	1	008			2/4/2008	14:16	4.34E+03	2.61E+02	1.32E−02	-4.08E-01	4.55E-01	7.47E-01	-1.00E−00	2.55E+00	2.73E+00	-4.32E-01	2.97E+00	2.79E+00	NA	NA	NA						
	3	020			8/5/2008	14:40	4.31E+03	2.28E+02	1.94E−02	2.77E-01	2.86E-01	4.67E-01	-1.87E-01	1.44E+00	2.35E+00	-1.04E-01	2.12E+00	2.66E+00	NA	NA	NA						
MW-31-49	3	004	48.8	26.8	8/2/2007	10:23	1.19E+04	1.27E+03	5.43E−02	-5.17E-01	7.89E-01	9.55E-01	8.83E+01	1.35E+01	3.31E+00	1.80E-01	3.63E+00	4.11E+00	NA	NA	NA	5.42E+03	ND	8.83E+01	ND	ND	MW-31-49
	4	006			10/24/2007	15:50	8.77E+03	9.99E+02	4.00E−02	5.14E-02	4.26E-01	5.36E-01	-6.76E-01	3.94E+00	3.57E+00	1.35E+00	3.21E+00	3.52E+00	NA	NA	NA						
	1	007			1/16/2008	10:31	3.97E+02	1.94E+02	1.77E−02	-9.14E-02	6.86E-01	8.97E-01	-1.17E−00	4.74E+00	5.07E+00	-9.76E-01	4.41E+00	4.65E+00	NA	NA	NA						
	3	010			8/7/2008	12:43	5.94E+02	1.33E+02	1.92E−02	2.39E-01	2.67E-01	4.43E-01	7.07E-01	1.30E+00	2.23E+00	7.08E-01	1.49E+00	2.56E+00	NA	NA	NA						
MW-31-63	3	004	63.3	12.3	8/2/2007	11:15	4.06E+04	2.27E+03	5.53E−02	-1.41E-01	7.84E-01	9.53E-01	1.20E+00	3.56E+00	4.18E+00	-3.09E-02	4.41E+00	4.23E+00	NA	NA	NA	2.66E+04	ND	ND	ND	ND	MW-31-63
	4	006			10/24/2007	14:55	3.58E+04	1.94E+03	4.00E−02	-1.63E-01	4.58E-01	6.34E-01	1.07E+00	5.31E+00	4.01E+00	1.01E+00	3.40E+00	4.11E+00	NA	NA	NA						
	1	007			1/16/2008	11:32	1.24E+04	7.38E+02	1.80E−02	-6.88E-02	5.34E-01	7.14E-01	-2.49E-01	4.04E+00	4.40E+00	-9.08E-01	4.19E+00	4.32E+00	NA	NA	NA						
	3	010			8/7/2008	11:22	1.76E+04	4.17E+02	1.94E−02	-2.12E-01	2.61E-01	5.39E-01	-1.85E-01	1.28E+00	2.16E+00	3.73E-01	1.43E+00	2.49E+00	NA	NA	NA						
MW-31-85	3	005	84.8	-9.2	9/11/2007	13:20	4.32E+03	3.32E+02	1.82E−02	6.86E-01	7.48E-01	7.93E-01	-7.01E-01	3.01E+00	3.26E+00	-3.07E+00	3.68E+00	3.21E+00	NA	NA	NA	3.36E+03	ND	ND	ND	NA	MW-31-85
	4	006			10/24/2007	14:40	5.51E+03	8.15E+02	3.98E−02	2.53E-01	4.08E-01	4.51E-01	5.68E-01	2.90E+00	3.38E+00	4.76E-01	2.75E+00	3.19E+00	NA	NA	NA						
	1	007			1/16/2008	11:26	1.31E+03	2.81E+02	1.84E−02	6.97E-01	7.67E-01	7.79E-01	2.68E+00	4.05E+00	4.83E+00	1.90E+00	3.80E+00	4.62E+00	NA	NA	NA						
	3	010			8/7/2008	11:13	2.30E+03	1.83E+02	1.94E−02	1.07E-01	2.87E-01	5.30E-01	-6.47E-01	1.22E+00	1.94E+00	1.63E-02	1.31E+00	2.18E+00	NA	NA	NA						
MW-32-62[7]	3	003	60.0	17.1	8/13/2007	13:07	1.42E104	6.00E102	1.99E 02	-2.71E-01	5.58E-01	7.58E-01	1.48E100	2.10E100	3.22E100	-4.66E-01	3.30E100	3.63E100	NA	NA	NA	1.14E104	ND	ND	ND	NA	MW-32-62
(MW-32-59)[8]	4	001	58.8	18.3	10/26/2007	12:07	1.11E+04	4.61E+02	1.84E−02	3.22E-01	6.43E-01	7.36E-01	-1.94E-01	3.82E+00	3.87E+00	2.45E+00	3.06E+00	4.08E+00	NA	NA	NA						(MW-32-59)
	1	005			1/18/2008	13:25	1.87E+04	9.11E+02	1.86E−02	4.67E-01	6.96E-01	7.37E-01	9.96E-01	4.25E+00	4.79E+00	1.99E+00	3.81E+00	4.63E+00	NA	NA	NA						
	3	005			7/31/2008	13:23	1.54E+03	1.63E+02	1.94E−02	1.72E-01	3.81E-01	6.90E-01	4.66E-01	1.97E+00	3.33E+00	-1.08E+00	2.48E+00	3.26E+00	NA	NA	NA						
MW-32-92	3	003	90.5	-13.4	8/13/2007	10:48	5.70E+03	4.05E+02	2.01E−02	-2.45E-02	4.47E-01	5.75E-01	3.28E-01	2.81E+00	3.15E+00	9.90E-01	2.98E+00	3.53E+00	NA	NA	NA	9.12E+03	ND	ND	ND	NA	MW-32-92
(MW-32-85)	4	004	85.3	85.3	10/26/2007	11:12	1.26E+04	4.79E+02	1.79E−02	-1.17E-01	4.27E-01	6.25E-01	8.85E-01	2.97E+00	3.45E+00	-1.85E-02	3.23E+00	3.63E+00	NA	NA	NA						(MW-32-85)
	1	005			1/18/2008	14:50	1.07E+04	6.90E+02	1.83E−02	-3.03E-01	4.38E-01	7.35E-01	3.57E-01	2.64E+00	2.67E+00	-5.37E-01	1.97E+00	2.13E+00	NA	NA	NA						
	3	008			7/31/2008	14:35	7.48E+03	2.83E+02	1.93E−02	1.16E-01	3.35E-01	6.24E-01	2.14E-01	2.06E+00	3.50E+00	1.07E+00	1.88E+00	3.43E+00	NA	NA	NA						
MW-32-140	2	002	138.0	-60.9	6/28/2007	12:45	3.02E+02	1.88E+02	1.97E−02	-1.39E-01	5.13E-01	5.94E-01	-1.46E−00	5.09E+00	4.92E+00	9.88E-01	3.76E+00	4.38E+00	NA	NA	NA	3.93E+02	ND	ND	ND	NA	MW-32-140
	3	003			8/13/2007	11:15	1.29E+02	1.70E+02	1.87E−02	2.69E-01	7.33E-01	8.51E-01	-8.09E-01	4.86E+00	4.85E+00	-1.19E+00	3.29E+00	3.22E+00	NA	NA	NA						
(MW-32-131)	4	004	130.8	-53.7	10/26/2007	10:11	3.74E+02	2.39E+02	2.42E−02	2.47E-01	6.03E-01	7.06E-01	-1.81E-01	3.48E+00	3.82E+00	-2.55E-01	3.92E+00	3.99E+00	NA	NA	NA						(MW-32-131)
	1	005			1/18/2008	11:23	5.04E+02	2.07E+02	1.79E−02	5.14E-01	7.79E-01	8.52E-01	8.47E-01	2.19E+00	2.21E+00	-8.40E-02	1.98E+00	2.18E+00	NA	NA	NA						
MW-32-165	3	003	163.0	-85.9	8/13/2007	11:35	4.93E+02	2.09E+02	2.08E−02	-6.38E-01	3.81E-01	6.52E-01	-1.42E−00	3.76E+00	3.37E+00	1.63E+00	1.69E+00	2.91E+00	NA	NA	NA	1.27E+03	ND	ND	ND	NA	MW-32-165
(MW-32-149)	4	004	149.3	-72.2	10/26/2007	10:10	2.92E+03	2.94E+02	1.90E−02	-2.45E-01	4.89E-01	7.22E-01	1.99E-01	3.10E+00	3.51E+00	1.65E-01	3.56E+00	3.99E+00	NA	NA	NA						(MW-32-149)
	1	005			1/18/2008	11:18	1.13E+03	2.69E+02	1.85E−02	3.04E-01	8.25E-01	9.33E-01	2.94E+00	4.29E+00	3.08E+00	-8.74E-01	2.82E+00	2.93E+00	NA	NA	NA						
	3	007			7/31/2008	11:10	5.32E+02	1.31E+02	1.94E−02	1.38E-02	3.46E-01	6.30E-01	1.06E+00	1.65E+00	2.87E+00	1.42E+00	1.56E+00	2.81E+00	NA	NA	NA						
MW-32-173	4	001	172.8	-95.7	10/26/2007	9:55	5.89E+03	3.87E+02	1.92E−02	1.86E-02	5.87E-01	7.54E-01	6.92E-01	3.00E+00	3.51E+00	-9.97E-01	2.91E+00	3.02E+00	NA	NA	NA	3.46E+03	ND	ND	ND	NA	MW-32-173
	1	002			1/18/2008	11:05	3.40E+03	4.07E+02	1.82E−02	1.13E-01	6.02E-01	7.63E-01	-3.84E-01	2.00E+00	2.18E+00	-6.14E-01	2.09E+00	2.25E+00	NA	NA	NA						
	3	004			7/31/2008	10:52	1.08E+03	1.48E+02	1.92E−02	6.80E-01	4.52E-01	7.11E-01	-1.17E−00	1.58E+00	2.47E+00	6.66E-01	1.65E+00	2.95E+00	NA	NA	NA						
MW-32-197	3	003	194.5	-117.4	8/13/2007	11:25	1.72E+03	2.67E+02	2.03E−02	-3.65E-01	8.12E-01	1.04E+00	6.21E-01	2.49E+00	2.93E+00	-1.19E+00	2.38E+00	2.39E+00	NA	NA	NA	6.27E+03	ND	ND	ND	NA	MW-32-197
(MW-32-190)	4	004	190.3	-113.7	10/26/2007	9:53	9.76E+03	4.80E+02	1.93E−02	-5.05E-01	7.75E-01	9.73E-01	-6.17E-01	3.07E+00	3.27E+00	-1.94E-01	3.18E+00	3.57E+00	NA	NA	NA						(MW-32-190)
	1	005			1/18/2008	11:35	8.89E+03	6.32E+02	1.83E−02	4.28E-01	7.73E-01	8.69E-01	6.57E-01	1.71E+00	2.02E+00	5.18E-01	1.65E+00	1.96E+00	NA	NA	NA						
	3	007			7/31/2008	11:21	4.71E+03	2.35E+02	1.94E−02	3.21E-01	3.35E-01	5.51E-01	-8.51E-01	1.55E+00	2.53E+00	2.22E+00	1.77E+00	3.30E+00	NA	NA	NA						
MW-33	2	020	16	2.8	6/15/2007	15:48	9.06E+04	3.26E+03	3.61E−02	-2.82E-01	2.86E-01	4.85E-01	-2.78E-01	3.82E+00	3.76E+00	-1.64E+00	3.44E+00	3.30E+00	-8.12E-01	1.16E−01	1.37E+01	5.68E+04	ND	ND	ND	ND	MW-33
	3	021			8/3/2007	10:20	2.30E+04	7.08E+02	2.04E−02	5.80E-01	8.49E-01	9.33E-01	8.18E-01	2.37E+00	2.83E+00	2.45E-01	2.13E+00	2.46E+00	NA	NA	NA						
MW-34	3	018	16.5	2.0	8/3/2007	10:21	2.22E104	7.44E102	2.13E 02	3.94E-02	7.08E-01	9.04E-01	-1.55E 00	4.53E100	4.44E100	2.12E100	3.40E100	4.01E100	NA	NA	NA	2.22E104	ND	ND	ND	NA	MW-34
MW-35	2	016	15.0	3.6	6/15/2007	13:58	2.03E103	5.87E102	3.84E 02	2.26E-01	4.34E-01	4.91E-01	4.66E101	8.82E100	2.81E100	-1.27E100	2.58E100	2.63E100	6.18E100	1.92E 01	2.20E101	3.99E103	ND	4.66E101	ND	ND	MW-35
	3	017			8/3/2007	10:22	5.95E+03	5.58E+02	2.70E−02	9.45E-02	5.76E-01	6.98E-01	-9.20E-01	2.71E+00	2.82E+00	5.74E-01	2.88E+00	3.33E+00	NA	NA	NA						
MW-36-24[9]	3	008			8/8/2007	13:45	1.63E+02	1.85E+02	2.04E−02	-5.35E-01	6.81E-01	9.31E-01	1.53E-01	3.40E+00	3.77E+00	3.56E+00	3.40E+00	4.17E+00	-7.46E+00	2.10E−01	2.54E+01	1.16E+03	ND	ND	ND	ND	MW-36-24
	4	009			10/18/2007	10:06	2.86E+02	1.91E+02	2.01E−02	8.36E-02	7.60E-01	9.26E-01	7.20E-01	2.91E+00	3.37E+00	3.11E-01	3.01E+00	3.47E+00	NA	NA	NA						
	1	010			1/23/2008	14:18	2.16E+03	2.36E+02	1.70E−02	1.03E-01	3.12E-01	3.76E-01	2.92E-02	2.39E+00	2.67E+00	-4.84E-01	2.37E+00	2.57E+00	NA	NA	NA						
	3	011			7/24/2008	13:57	1.02E+03	1.22E+02	1.63E−02	3.38E-01	3.75E-01	6.24E-01	3.97E-01	2.09E+00	3.61E+00	-5.45E-01	2.37E+00	3.85E+00	NA	NA	NA						
MW-36-41	2	007	37.0	-25.2	6/27/2007	12:30	6.11E+03	3.50E+02	1.74E−02	2.18E+00	1.17E+00	9.35E-01	4.30E-01	4.61E+00	1.74E+00	1.36E+00	2.91E+00	3.67E+00	NA	NA	NA	6.11E+03	2.18E+00	ND	ND	NA	MW-36-41
MW-36-52[10]	2	007	50.0	-38.2	6/27/2007	11:45	1.01E+04	4.89E+02	1.95E−02	2.62E+00	1.09E+00	3.28E-01	-3.82E-01	2.77E+00	2.99E+00	9.25E-01	2.61E+00	3.14E+00	NA	NA	NA	1.16E+04	3.85E+00	ND	ND	ND	MW-36-52
	3	008			8/8/2007	14:15	1.23E+04	1.24E+03	4.60E−02	2.26E+00	1.00E+00	2.82E-01	1.30E+00	2.97E+00	3.51E+00	-8.82E-01	3.31E+00	3.55E+00	4.27E+00	2.14E−01	2.47E+01						
	1	009			1/23/2008	14:13	1.13E+04	4.47E+02	1.71E−02	4.85E+00	9.69E-01	4.24E-01	-2.89E-01	2.01E+00	2.25E+00	4.08E-01	1.86E+00	2.20E+00	NA	NA	NA						
	3	010			7/24/2008	16:00	1.26E+04	7.66E+02	3.74E−02	5.67E+00	7.42E-01	4.73E-01	-4.79E-01	2.24E+00	3.69E+00	2.77E-02	2.11E+00	3.53E+00	NA	NA	NA						
MW-37-22	3	008	17.0	-2.0	8/7/2007	10:55	2.79E+03	2.69E+02	1.89E−02	1.83E+01	2.07E+00	8.57E-01	2.74E+00	3.93E+00	4.22E+00	4.23E-01	3.07E+00	3.54E+00	NA	NA	NA	3.98E+03	1.55E+01	ND	ND	NA	MW-37-22
	4	009			10/15/2007	14:30	2.26E+03	2.22E+02	1.69E−02	2.29E+01	2.28E+00	4.67E-01	1.33E+00	3.25E+00	3.78E+00	-1.42E+00	3.44E+00	3.41E+00	NA	NA	NA						
	1	010			1/23/2008	10:42	6.52E+03	3.54E+02	1.71E−02	8.73E+00	1.27E+00	4.63E-01	-2.09E−00	2.96E+00	2.86E+00	2.34E-01	3.08E+00	3.49E+00	NA	NA	NA						
	3	011			7/24/2008	11:20	4.33E+03	2.28E+02	1.95E−02	1.22E+01	1.25E+00	7.14E-01	4.32E-01	2.13E+00	3.66E+00	2.97E+00	2.57E+00	4.83E+00	NA	NA	NA						

IPEC00201763

See Page 8 for Notes

TABLE 3
2007-2008 GROUNDWATER ANALYTICAL RESULTS
AND AVERAGES
INDIAN POINT ENGERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLING QUARTER[2]	SAMPLE ID	SAMPLE ZONE CENTER, Depth Ft Below Top of Casing[3]	SAMPLE ZONE CENTER, Elevation Ft msl[3]	SAMPLE COLLECTION		ANALYSIS RESULTS															YEARLY ROLLING AVERAGES[4]					Well ID
							TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			TRITIUM (pCi/L)	Sr-90 (pCi/L)	Cs-137 (pCi/L)	Co-60 (pCi/L)	Ni-63 (pCi/L)	
					Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Average	Average	Average	Average	Average	
MW-37-32	3	008	29	-14	8/7/2007	10:56	3.81E+03	2.97E+02	1.87E-02	1.89E+01	2.02E+00	2.36E+00	1.99E+00	3.18E+00	3.88E+00	1.88E+00	3.19E+00	4.01E+00	NA	NA	NA	4.56E+03	1.90E+01	ND	ND	NA	MW-37-32
	4	009			10/15/2007	14:36	2.49E+03	2.30E+02	1.69E-02	2.13E+01	2.19E+00	2.66E+00	8.79E-01	4.61E+00	4.81E+00	2.53E+00	3.75E+00	4.70E+00	NA	NA	NA						
	1	010			1/23/2008	11:03	6.76E+03	3.57E+02	1.70E-02	1.52E+01	1.59E+00	3.65E-01	1.09E+00	2.70E+00	3.16E+00	-5.32E-02	2.72E+00	2.55E+00	NA	NA	NA						
	3	011			7/24/2008	12:28	5.16E+03	2.45E+02	1.95E-02	2.06E+01	1.51E+00	8.63E-01	-4.08E-01	1.58E+00	2.18E+00	-1.46E-01	2.04E+00	2.58E+00	NA	NA	NA						
MW-37-40	3	008	39	-24	8/7/2007	13:45	5.85E+03	3.50E+02	1.88E-02	9.76E+00	1.51E+00	6.27E-01	1.10E+00	3.12E+00	3.71E+00	-2.48E-01	3.36E+00	3.70E+00	NA	NA	NA	5.88E+03	4.50E+00	ND	ND	ND	MW-37-40
	4	009			10/15/2007	15:00	5.69E+03	3.03E+02	1.69E-02	5.98E+00	1.28E+00	7.48E-01	7.63E-01	2.91E+00	3.38E+00	5.99E-01	2.82E+00	3.32E+00	NA	NA	NA						
	1	010			2/1/2008	17:20	6.73E+03	3.17E+02	1.33E-02	9.48E-01	8.54E-01	8.45E-01	3.09E-01	2.63E+00	2.95E+00	-3.70E-01	2.75E+00	2.94E+00	-4.35E+00	1.46E-01	1.76E+01						
	3	011			7/24/2008	13:12	5.24E+03	2.43E+02	1.91E-02	1.31E+00	4.41E-01	5.07E-01	-1.10E-00	1.52E+00	2.48E+00	-1.35E+00	2.11E+00	2.70E+00	NA	NA	NA						
MW-37-57	3	008	55	-40	8/7/2007	12:55	6.68E+03	3.68E+02	1.88E-02	2.33E+01	2.15E+00	5.01E-01	-1.35E-00	3.27E+00	3.42E+00	-3.64E-02	3.86E+00	4.33E+00	NA	NA	NA	5.88E+03	2.53E+01	ND	ND	ND	MW-37-57
	4	009			10/15/2007	15:00	4.88E+03	2.85E+02	1.68E-02	2.78E+01	2.49E+00	5.53E-01	3.62E-01	2.67E+00	2.72E+00	1.20E-01	2.40E+00	2.77E+00	NA	NA	NA						
	1	010			2/1/2008	16:31	6.63E+03	3.14E+02	1.33E-02	2.89E+01	3.20E+00	9.62E-01	-9.11E-01	3.72E+00	3.68E+00	-2.93E-01	3.12E+00	3.45E+00	8.47E-01	1.46E-01	1.71E+01						
	3	011			7/24/2008	13:20	5.33E+03	2.47E+02	1.94E-02	2.12E+01	1.46E+00	5.37E-01	-7.11E-01	1.88E+00	3.07E+00	-1.17E+00	2.10E+00	3.24E+00	NA	NA	NA						
MW-38	3	020	25.4	-11.1	8/16/07	11:30	6.04E+02	1.53E+02	1.44E-02	-9.21E-02	6.92E-01	8.85E-01	1.21E+00	3.07E+00	3.65E+00	2.48E+00	3.01E+00	3.98E+00	NA	NA	NA	6.04E+02	ND	ND	ND	NA	MW-38
MW-39-67	2	001	67.0	13.0	5/22/2007	9:53	4.73E+02	1.77E+02	1.31E-02	2.76E+00	8.57E-01	5.71E-01	1.23E-01	1.67E+00	1.85E+00	1.84E+00	1.88E+00	2.08E+00	-3.11E+00	1.06E-01	1.23E+01	3.85E+02	3.69E+00	ND	ND	ND	MW-39-67
	3	002			8/7/2007	16:30	3.23E+02	1.86E+02	1.95E-02	4.78E+00	1.13E+00	6.32E-01	2.59E+00	4.62E+00	3.57E+00	2.62E-01	2.55E+00	2.96E+00	NA	NA	NA						
	1	003			1/17/2008	14:35	3.57E+02	1.95E+02	1.83E-02	3.52E+00	1.29E+00	8.53E-01	-1.28E-01	3.17E+00	3.57E+00	1.76E+00	3.63E+00	4.25E+00	NA	NA	NA						
MW-39-84	2	001	83.5	-3.5	5/22/2007	10:38	3.91E+02	1.89E+02	1.29E-02	1.72E+00	7.22E-01	5.37E-01	-9.07E-02	1.53E+00	1.69E+00	5.61E-01	1.58E+00	1.81E+00	-1.68E+00	9.99E-00	1.15E+01	4.22E+02	1.43E+00	ND	ND	ND	MW-39-84
	3	002			8/7/2007	15:30	2.52E102	1.77E102	1.91E 02	7.97E-01	7.18E-01	7.30E-01	3.55E-01	3.07E100	3.44E100	-1.11E100	3.59E100	3.76E100	NA	NA	NA						
	1	003			1/17/2008	13:25	1.43E102	1.70E102	1.84E 02	1.78E100	9.47E-01	7.24E-01	-2.74E 00	2.99E100	2.86E100	8.36E-01	2.94E100	3.50E100	NA	NA	NA						
MW-39-102	2	001	101.5	-21.5	5/22/2007	10:40	8.03E102	2.13E102	1.29E 02	1.32E100	7.17E-01	6.21E-01	-3.99E-02	1.61E100	1.99E100	6.54E-01	1.78E100	2.11E100	6.39E-02	1.15E 01	1.32E101	5.63E102	1.15E100	ND	ND	ND	MW-39-102
	3	002			8/7/2007	14:25	3.21E+02	1.79E+02	1.88E-02	4.71E-01	5.61E-01	5.95E-01	-7.63E-01	3.35E+00	3.60E+00	-2.47E+00	4.70E+00	4.22E+00	NA	NA	NA						
	1	003			1/17/2008	13:32	1.54E+02	1.67E+02	1.79E-02	9.88E-01	8.36E-01	7.97E-01	7.42E-01	2.37E+00	2.83E+00	7.91E-01	3.45E+00	2.98E+00	NA	NA	NA						
MW-39-124	2	001	124.0	-44.0	5/22/2007	9:50	2.61E+02	1.49E+02	1.31E-02	9.26E-01	9.70E-01	1.00E+00	-1.15E-01	1.64E+00	1.80E+00	-5.31E-01	1.54E+00	1.63E+00	3.55E+00	1.17E-01	1.33E+01	2.27E+02	1.48E+00	ND	ND	ND	MW-39-124
	3	002			8/7/2007	13:40	1.92E+02	1.73E+02	1.88E-02	5.90E-01	8.57E-01	9.43E-01	-1.14E-00	2.94E+00	3.06E+00	4.97E-01	3.17E+00	3.61E+00	NA	NA	NA						
	1	003			1/17/2008	15:40	1.67E+02	1.64E+02	1.73E-02	1.48E+00	9.71E-01	8.60E-01	6.55E-01	2.61E+00	3.00E+00	9.85E-01	2.03E+00	2.55E+00	NA	NA	NA						
MW-39-183	2	001	182.5	-102.5	5/22/2007	10:08	2.47E+02	1.45E+02	1.29E-02	6.51E-01	8.82E-01	9.53E-01	6.42E-01	1.88E+00	1.89E+00	3.09E-02	1.58E+00	1.79E+00	0.00E+00	1.09E-01	1.25E+01	2.47E+02	8.29E-01	ND	ND	ND	MW-39-183
	3	002			8/7/2007	12:40	1.88E+02	1.73E+02	1.89E-02	7.11E-01	8.02E-01	8.32E-01	1.38E+00	5.12E+00	5.12E+00	2.34E+00	4.56E+00	5.46E+00	NA	NA	NA						
	1	003			1/17/2008	11:55	4.63E+01	1.56E+02	1.82E-02	8.29E-01	6.17E-01	5.82E-01	-3.72E-01	3.51E+00	3.92E+00	0.00E+00	2.03E+00	2.20E+00	NA	NA	NA						
MW-39-195	2	001	195.0	-115.0	5/22/2007	12:45	2.55E+02	1.50E+02	1.33E-02	1.30E+00	6.90E-01	5.69E-01	0.00E+00	7.67E+00	4.34E+00	3.54E-01	4.16E+00	4.82E+00	-2.52E+00	9.95E-00	1.15E+01	2.28E+02	1.10E+00	ND	ND	ND	MW-39-195
	3	002			8/7/2007	12:00	2.00E+02	1.70E+02	1.85E-02	5.92E-01	6.23E-01	6.55E-01	-4.03E-02	4.14E+00	4.06E+00	-2.76E-01	4.56E+00	4.30E+00	NA	NA	NA						
	1	003			1/17/2008	17:28	9.63E+01	1.64E+02	1.84E-02	8.97E-01	8.51E-01	8.38E-01	7.57E-01	4.08E+00	4.05E+00	8.15E-01	3.42E+00	4.01E+00	NA	NA	NA						
MW-40-27	2	001	26.7	46.5	6/5/2007	11:00	1.56E+02	1.58E+02	1.63E-02	-7.82E-04	6.48E-01	8.50E-01	2.70E-02	3.04E+00	3.39E+00	1.48E+00	2.90E+00	3.17E+00	NA	NA	NA	2.22E+02	ND	ND	ND	ND	MW-40-27
	3	002			7/23/2007	12:35	1.62E+02	1.59E+02	1.69E-02	3.32E-01	5.90E-01	6.62E-01	2.52E+00	3.39E+00	3.88E+00	-5.97E-02	3.45E+00	3.83E+00	NA	NA	NA						
	1	003			1/7/2008	16:28	1.44E+02	1.70E+02	1.82E-02	-4.39E-01	4.49E-01	7.34E-01	-4.17E-01	1.74E+00	1.87E+00	6.09E-01	1.70E+00	1.99E+00	NA	NA	NA						
	3	004			8/11/2008	13:19	2.22E+02	1.06E+02	1.72E-02	3.66E-01	4.20E-01	7.05E-01	6.06E-01	2.28E+00	4.00E+00	-3.72E-01	2.56E+00	3.83E+00	-7.57E+00	1.15E-01	2.05E+01						
MW-40-46	3	002	46.2	27.0	7/23/2007	12:15	9.48E+01	1.53E+02	1.71E-02	3.50E-01	5.61E-01	6.28E-01	-9.08E-01	3.79E+00	4.09E+00	-1.72E+00	3.07E+00	2.90E+00	NA	NA	NA	ND	ND	ND	ND	NA	MW-40-46
	4	003			10/12/2007	14:45	-1.59E+01	1.52E+02	1.74E-02	-2.14E-02	5.10E-01	6.85E-01	-3.80E-01	3.72E+00	3.59E+00	4.94E-01	3.72E+00	4.26E+00	NA	NA	NA						
	1	004			1/7/2008	14:42	-1.96E+01	1.45E+02	1.80E-02	8.04E-01	8.55E-01	8.75E-01	-1.21E-00	2.84E+00	3.00E+00	1.16E+00	2.58E+00	2.82E+00	NA	NA	NA						
	3	005			8/11/2008	13:35	1.68E+02	1.04E+02	1.71E-02	-3.25E-01	3.77E-01	8.09E-01	1.25E-01	1.99E+00	3.31E+00	1.09E+00	2.05E+00	3.64E+00	4.04E+00	1.17E-01	2.01E+01						
MW-40-81	3	002	80.7	-7.5	7/23/2007	13:00	6.95E+01	1.52E+02	1.72E-02	2.45E-01	6.00E-01	6.94E-01	-7.08E-01	4.95E+00	5.20E+00	2.31E+00	3.81E+00	4.95E+00	NA	NA	NA	2.42E+02	ND	ND	ND	NA	MW-40-81
	4	003			10/12/2007	10:52	6.99E+01	1.53E+02	1.73E-02	-9.65E-02	5.03E-01	7.10E-01	5.47E-01	4.00E+00	4.48E+00	7.73E-01	4.02E+00	4.61E+00	NA	NA	NA						
	1	004			1/7/2008	14:35	1.09E+02	1.64E+02	1.81E-02	2.87E-01	7.03E-01	8.26E-01	-7.49E-01	2.51E+00	2.38E+00	-2.66E-01	1.77E+00	1.95E+00	NA	NA	NA						
	3	005			8/11/2008	9:43	2.42E+02	1.06E+02	1.71E-02	1.68E-01	3.63E-01	6.52E-01	-7.84E-02	1.69E+00	2.78E+00	2.60E-01	1.92E+00	3.23E+00	-2.96E+00	1.10E-01	1.92E+01						
MW-40-100	3	002	100.2	-27.0	7/23/2007	13:20	8.12E101	1.55E102	1.73E 02	2.91E-01	6.18E-01	6.96E-01	-4.67E-01	1.91E100	2.10E100	1.78E-01	1.94E100	2.20E100	NA	NA	NA	1.93E102	ND	ND	ND	NA	MW-40-100
	4	003			10/12/2007	11:03	5.93E101	1.53E102	1.73E 02	-7.39E-02	5.73E-01	7.69E-01	1.93E100	3.57E100	3.87E100	8.90E-01	3.30E100	3.61E100	NA	NA	NA						
	1	004			1/7/2008	11:55	1.98E+01	1.52E+02	1.81E-02	-7.69E-02	5.85E-01	8.00E-01	3.13E-01	2.27E+00	2.60E+00	8.84E-02	2.75E+00	2.86E+00	NA	NA	NA						
	3	007			8/11/2008	10:10	1.93E+02	1.05E+02	1.71E-02	-3.44E-02	2.85E-01	5.83E-01	-1.18E-01	1.59E+00	2.68E+00	6.38E-01	1.52E+00	2.70E+00	0.00E+00	1.09E-01	1.89E+01						
MW-40-127	3	002	127.2	-54.0	7/23/2007	15:15	4.26E+01	1.44E+02	1.68E-02	3.83E-01	5.15E-01	5.73E-01	-1.17E-00	1.67E+00	1.76E+00	2.04E-01	1.59E+00	1.77E+00	NA	NA	NA	ND	ND	ND	ND	NA	MW-40-127
	4	003			10/12/2007	11:30	2.83E+01	1.44E+02	1.64E-02	1.01E-01	4.97E-01	6.24E-01	-2.32E-00	3.90E+00	4.06E+00	-1.51E+00	3.72E+00	3.79E+00	NA	NA	NA						
	1	004			1/7/2008	12:30	9.75E+00	1.48E+02	1.79E-02	5.17E-01	6.83E-01	7.23E-01	6.45E-01	2.42E+00	2.77E+00	3.24E-01	2.28E+00	2.59E+00	NA	NA	NA						
	3	007			8/11/2008	10:34	1.68E+02	1.04E+02	1.70E-02	1.65E-01	2.41E-01	4.19E-01	1.24E-01	1.65E+00	2.81E+00	7.30E-03	1.49E+00	2.51E+00	-8.77E+00	1.13E-01	2.01E+01						
MW-40-162	3	002	161.7	-88.5	7/23/2007	17:40	2.59E+01	1.46E+02	1.73E-02	1.19E-01	4.45E-01	5.07E-01	-2.51E-01	2.81E+00	1.75E+00	7.27E-01	1.45E+00	1.69E+00	NA	NA	NA	2.30E+02	ND	ND	ND	NA	MW-40-162
	4	003			10/12/2007	12:54	4.45E+01	1.49E+02	1.69E-02	-5.48E-02	6.20E-01	8.19E-01	-1.11E-00	4.47E+00	4.05E+00	-1.01E+00	3.31E+00	3.47E+00	NA	NA	NA						
	1	004			1/7/2008	13:10	4.96E+01	1.56E+02	1.82E-02	7.93E-02	3.63E-01	4.48E-01	4.17E-01	2.52E+00	2.87E+00	3.63E-01	2.40E+00	2.72E+00	NA	NA	NA						
	3	005			8/11/2008	11:44	2.30E+02	1.08E+02	1.75E-02	7.70E-02	4.19E-01	7.31E-01	6.25E-01	2.43E+00	4.16E+00	3.15E+00	2.07E+00	4.11E+00	-5.27E+00	1.22E-01	2.16E+01						
MW-41-40	2	008	36.0	18.9	6/19/2007	14:45	3.91E+03	7.32E+02	3.60E-02	5.99E+00	1.15E+00	7.49E-01	-3.09E-00	4.42E+00	3.28E+00	-3.47E-01	2.81E+00	3.01E+00	2.21E-01	1.27E-01	1.49E+01	1.50E+03	5.00E+00	2.67E+00	ND	ND	MW-41-40
	3	009			8/14/2007	14:35	3.80E+02	1.97E+02	2.00E-02	5.96E+00	1.17E+00	7.45E-01	0.00E+00	3.52E+00	3.31E+00	1.40E+00	4.08E+00	4.00E+00	NA	NA	NA						
	1	010			1/24/2008	16:28	2.15E+02	1.80E+02	1.93E-02	3.05E+00	1.07E+00	7.54E-01	2.67E+00	2.55E+00	2.21E+00	-5.18E-01	2.00E+00	2.16E+00	NA	NA	NA						
MW-41-63	2	007	61.0	-6.1	6/20/2007	11:05	5.52E+02	1.97E+02	1.86E-02	7.08E+00	1.28E+00	6.27E-01	-3.10E-01	2.37E+00	2.65E+00	-1.06E-02	2.33E+00	2.65E+00	-4.39E-01	1.26E-01	1.48E+01	4.67E+02	4.80E+00	ND	ND	ND	MW-41-63
	3	008			8/14/2007	16:10	5.47E+02	2.04E+02	1.99E-02	3.55E+00	9.02E-01	5.31E-01	-2.83E-00	3.40E+00	3.20E+00	1.32E-01	3.48E+00	3.87E+00	NA	NA	NA						
	1	009			1/25/2008	10:05	3.03E+02	2.79E+02	2.93E-02	3.76E+00	1.13E+00	8.22E-01	0.00E+00	3.33E+00	1.89E+00	5.24E-02	1.64E+00	1.88E+00	NA	NA	NA						

IPEC00201764

TABLE 3
2007-2008 GROUNDWATER ANALYTICAL RESULTS
AND AVERAGES
INDIAN POINT ENGERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLING QUARTER[2]	SAMPLE ID	SAMPLE ZONE CENTER, Depth Ft Below Top of Casing[3]	SAMPLE ZONE CENTER, Elevation Ft msl[3]	SAMPLE COLLECTION		ANALYSIS RESULTS															YEARLY ROLLING AVERAGES[4]					Well ID
							TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			TRITIUM (pCi/L)	Sr-90 (pCi/L)	Cs-137 (pCi/L)	Co-60 (pCi/L)	Ni-63 (pCi/L)	
					Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Average	Average	Average	Average	Average	
MW-42-49	3	005	41	28.7	8/2/2007	14:37	1.50E+03	6.26E+02	5.53E-02	5.02E+01	2.96E+00	9.41E-01	2.48E+04	2.25E+03	2.17E+01	3.55E+00	4.61E+00	5.85E+00	8.05E+02	5.24E-01	2.19E+01	2.14E+03	4.14E+01	2.51E+04	1.59E+01	6.63E+02	MW-42-49
	3	006			8/17/2007	9:30	1.60E+03	2.49E+02	1.71E-02	2.01E+01	2.01E+00	6.03E-01	1.96E+04	2.10E+03	1.68E+01	-4.63E-01	4.86E+00	4.62E+00	5.26E+02	3.69E-01	1.88E+01						
	4	007			10/4/2007	12:40	2.46E+03	2.87E+02	1.93E-02	4.65E+01	3.12E+00	6.02E-01	3.69E+04	3.14E+03	1.83E+01	1.59E+01	6.25E+00	3.61E+00	1.17E+03	4.94E-01	1.88E+01						
	1	008			1/21/2008	16:11	1.32E+03	5.25E+02	4.15E-02	3.34E+01	3.18E+00	9.11E-01	3.38E+04	2.93E+03	2.02E+01	0.00E+00	4.13E+00	5.42E+00	5.01E+02	5.01E-01	2.68E+01						
	3	011			8/4/2008	14:24	3.16E+03	2.65E+02	1.91E-02	3.56E+01	1.72E+00	5.59E-01	1.06E+04	6.13E+02	1.20E+01	-8.47E-03	2.69E+00	4.52E+00	3.13E+02	2.60E-01	2.61E+01						
MW-42-78	3	004	74	-4.3	7/27/2007	11:30	3.19E+02	1.94E+02	1.82E-02	-2.21E-01	4.50E-01	5.87E-01	0.00E+00	4.72E+00	3.48E+00	1.25E+00	3.12E+00	3.79E+00	6.81E+00	1.99E-01	2.28E+01	4.65E+02	3.91E-01	1.52E+02	ND	ND	MW-42-78
	3	005			8/17/2007	9:56	4.61E+02	1.85E+02	1.75E-02	2.69E-01	6.60E-01	7.62E-01	4.51E+01	8.54E+00	4.06E+00	-7.27E-01	3.18E+00	2.76E+00	3.04E+00	1.71E-01	1.98E+01						
	4	006			10/4/2007	13:25	4.34E+02	1.94E+02	1.94E-02	2.33E-01	3.09E-01	3.43E-01	3.04E+02	3.44E+01	4.71E+00	3.10E+00	4.04E+00	5.18E+00	6.86E-01	1.53E-01	1.77E+01						
	1	007			1/21/2008	15:33	3.46E+02	1.89E+02	1.96E-02	-2.51E-01	6.81E-01	9.32E-01	1.08E+02	1.52E+01	3.35E+00	1.71E-01	3.33E+00	3.61E+00	9.73E+00	2.42E-01	2.75E+01						
	3	009			8/4/2008	12:07	6.18E+02	1.50E+02	1.91E-02	3.91E-01	2.57E-01	3.76E-01	2.71E+00	2.02E+00	3.75E+00	-6.44E-01	2.10E+00	3.29E+00	-7.57E-01	1.52E-01	2.68E+01						
MW-43-28	2	007	23.0	25.8	6/18/2007	13:30	2.78E+02	1.70E+02	1.74E-02	1.07E+00	5.97E-01	4.86E-01	-3.68E-01	3.13E+00	3.39E+00	-3.72E-01	3.31E+00	3.46E+00	3.58E+00	1.50E-01	1.73E+01	2.92E+02	1.07E+00	ND	ND	ND	MW-43-28
	3	008			8/13/2007	11:35	9.56E+01	1.71E+02	1.93E-02	-6.25E-01	7.50E-01	1.02E+00	-7.36E-01	3.57E+00	3.68E+00	2.77E-01	2.70E+00	3.12E+00	NA	NA	NA						
	1	009			1/25/2008	11:11	3.06E+02	2.82E+02	2.96E-02	1.46E-01	6.06E-01	7.38E-01	1.88E+00	2.16E+00	2.66E+00	1.46E+00	2.51E+00	3.03E+00	8.44E+00	1.76E-01	1.99E+01						
MW-43-62	2	007	54.0	-5.2	6/19/2007	9:36	1.97E+02	1.88E+02	2.02E-02	8.55E-01	6.58E-01	6.40E-01	-6.77E-01	3.21E+00	3.42E+00	-8.52E-01	3.10E+00	3.26E+00	1.38E+00	1.33E-01	1.55E+01	ND	9.78E-01	ND	ND	ND	MW-43-62
	3	008			8/13/2007	12:42	1.11E+02	1.73E+02	1.92E-02	1.29E-01	6.90E-01	8.27E-01	-1.18E-00	3.65E+00	3.89E+00	1.53E-01	3.31E+00	3.80E+00	NA	NA	NA						
	1	009			1/25/2008	10:57	1.23E+02	1.74E+02	1.93E-02	1.00E+00	6.47E-01	5.52E-01	4.31E-01	2.42E+00	2.39E+00	-1.11E+00	2.07E+00	2.10E+00	3.76E+00	1.67E-01	1.91E+01						
MW-44-66	3	005	63.0	30.5	8/14/2007	13:10	4.17E+02	1.98E+02	2.00E-02	9.30E-02	4.72E-01	5.75E-01	-8.93E-01	2.91E+00	3.08E+00	-3.39E-01	3.40E+00	3.11E+00	NA	NA	NA	4.42E+02	ND	1.73E+01	ND	NA	MW-44-66
	4	006			10/31/2007	13:30	5.13E102	1.82E102	1.81E 02	3.77E-01	4.10E-01	4.21E-01	2.76E100	4.29E100	4.81E100	1.91E100	3.90E100	4.71E100	NA	NA	NA						
	1	008			1/24/2008	12:55	2.91E102	2.00E102	2.12E 02	2.85E-01	4.53E-01	4.99E-01	1.73E101	4.35E100	2.31E100	1.40E100	3.17E100	2.43E100	NA	NA	NA						
	3	009			7/25/2008	12:18	5.50E102	2.55E102	3.75E 02	3.07E-01	3.66E-01	6.17E-01	-2.35E 00	2.53E100	3.03E100	-2.09E-01	1.74E100	2.83E100	NA	NA	NA						
MW-44-102	3	006	80.0	13.5	8/14/2007	14:55	2.84E+02	1.89E+02	1.99E-02	1.97E-01	7.63E-01	8.99E-01	-1.46E-00	2.76E+00	2.77E+00	-1.35E+00	2.79E+00	2.73E+00	NA	NA	NA	3.73E+02	ND	1.18E+01	ND	ND	MW-44-102
	4	007			10/31/2007	12:01	3.54E+02	1.76E+02	1.82E-02	-2.58E-01	7.75E-01	9.60E-01	-6.60E-01	2.88E+00	3.11E+00	-1.23E+00	3.60E+00	3.11E+00	NA	NA	NA						
	1	007			1/24/2008	13:05	4.17E+02	2.94E+02	2.96E-02	2.06E-01	5.16E-01	6.04E-01	1.18E+01	4.64E+00	3.19E+00	-4.44E-03	2.85E+00	3.11E+00	NA	NA	NA						
	3	010			7/25/2008	12:18	4.37E+02	2.46E+02	3.75E-02	-2.83E-02	1.83E-01	3.21E-01	-4.07E-01	1.78E+00	2.88E+00	1.35E+00	1.87E+00	3.41E+00	NA	NA	NA						
MW-45-42	3	009	37.0	16.6	8/15/2007	11:30	1.16E+03	1.80E+02	1.47E-02	-3.79E-01	7.74E-01	9.47E-01	1.92E+00	2.76E+00	3.41E+00	1.19E+00	2.60E+00	3.23E+00	NA	NA	NA	1.79E+03	9.98E-01	ND	ND	ND	MW-45-42
	4	010			10/5/2007	11:05	2.22E+03	3.05E+02	1.50E-02	3.55E-01	5.10E-01	5.56E-01	0.00E+00	4.13E+00	1.99E+00	3.65E-01	1.94E+00	2.21E+00	NA	NA	NA						
	1	011			1/25/2008	12:15	1.44E+03	3.90E+02	2.96E-02	2.08E-01	5.13E-01	6.03E-01	1.60E+00	2.43E+00	2.88E+00	5.96E-01	2.31E+00	2.66E+00	NA	NA	NA						
	3	013			7/25/2008	16:40	2.32E+03	3.77E+02	3.74E-02	9.98E-01	3.24E-01	3.75E-01	-1.77E-00	1.76E+00	2.53E+00	1.09E+00	1.76E+00	3.19E+00	NA	NA	NA						
MW-45-61	3	009	58.0	-4.4	8/15/2007	11:55	1.50E+03	1.88E+02	1.41E-02	4.74E-02	7.90E-01	9.41E-01	3.33E+00	4.25E+00	4.03E+00	-6.51E-01	3.86E+00	3.59E+00	NA	NA	NA	2.03E+03	ND	ND	ND	ND	MW-45-61
	4	010			10/5/2007	11:30	2.13E+03	3.03E+02	1.52E-02	4.87E-01	5.23E-01	5.36E-01	-1.73E-01	1.43E+00	1.56E+00	6.59E-02	1.46E+00	1.62E+00	NA	NA	NA						
	1	011			1/25/2008	11:55	2.66E+03	4.80E+02	2.96E-02	4.26E-01	5.76E-01	6.21E-01	2.42E+00	3.60E+00	2.52E+00	-2.05E-01	2.88E+00	3.19E+00	NA	NA	NA						
	3	013			7/25/2008	13:51	1.80E+03	3.46E+02	3.76E-02	2.36E-01	2.45E-01	4.05E-01	-1.88E-00	1.91E+00	2.80E+00	7.83E-01	1.91E+00	3.40E+00	NA	NA	NA						
MW-46	3	009	10.5	7.6	8/1/2007	11:35	6.62E+02	3.50E+02	2.44E-02	7.89E-02	3.66E-01	4.49E-01	6.63E-01	3.52E+00	3.80E+00	6.33E-02	2.43E+00	2.77E+00	NA	NA	NA	9.13E+02	ND	ND	ND	ND	MW-46
	4	010			10/22/2007	14:20	1.67E+03	5.27E+02	4.01E-02	2.17E-01	4.72E-01	5.44E-01	4.68E-01	2.97E+00	3.34E+00	-7.20E-01	2.94E+00	3.09E+00	NA	NA	NA						
	1	011			1/22/2008	12:19	5.49E+02	1.74E+02	1.70E-02	5.30E-01	7.71E-01	8.47E-01	-3.99E-01	2.64E+00	2.84E+00	1.73E+00	2.61E+00	3.31E+00	NA	NA	NA						
	3	013			7/24/2008	16:56	7.71E+02	2.75E+02	3.77E-02	2.74E-01	3.07E-01	5.10E-01	6.05E-01	1.96E+00	3.38E+00	-1.89E+00	2.10E+00	3.09E+00	NA	NA	NA						
MW-47-56	2	004	52.0	18.3	6/20/2007	10:07	5.29E+02	1.95E+02	1.85E-02	5.93E-01	5.25E-01	5.10E-01	0.00E+00	6.66E+00	3.37E+00	3.57E+00	3.71E+00	4.73E+00	3.81E+00	1.32E-01	1.51E+01	4.00E+02	5.93E-01	ND	ND	ND	MW-47-56
	3	005			8/10/2007	11:00	2.70E+02	1.88E+02	2.02E-02	5.07E-01	8.04E-01	8.91E-01	-3.84E-01	3.48E+00	3.75E+00	1.49E-01	2.94E+00	3.37E+00	NA	NA	NA						
MW-47-80	2	003	72.0	-1.7	6/19/2007	11:00	2.36E+03	5.94E+02	3.58E-02	3.27E+00	8.98E-01	5.28E-01	2.05E+00	3.81E+00	4.58E+00	-2.27E+00	4.82E+00	3.92E+00	4.08E-01	1.18E-01	1.38E+01	2.94E+03	3.41E+00	ND	ND	ND	MW-47-80
	3	004			8/10/2007	12:21	3.51E+03	7.25E+02	4.52E-02	3.55E+00	1.21E+00	9.05E-01	-9.39E-02	3.21E+00	3.56E+00	-8.20E-02	3.18E+00	3.50E+00	NA	NA	NA						
MW-48-23	3	011	15.8	-0.4	8/16/07	11:00	3.93E+02	1.64E+02	1.61E-02	-3.94E-01	5.69E-01	8.17E-01	1.66E+00	4.92E+00	3.58E+00	5.36E-01	3.03E+00	3.55E+00	NA	NA	NA	3.93E+02	ND	ND	ND	NA	MW-48-23
MW-48-37	3	011	35.8	-20.4	8/16/07	11:07	1.29E+02	1.59E+02	1.75E-02	4.11E-02	6.27E-01	7.94E-01	1.78E+00	4.35E+00	4.53E+00	-4.00E-01	4.51E+00	5.01E+00	NA	NA	NA	ND	ND	ND	ND	NA	MW-48-37
MW-49-26	2	009	20.0	-5.3	6/26/2007	12:30	7.76E+03	3.48E+02	1.79E-02	1.27E+01	1.40E+00	7.13E-01	1.36E+00	2.55E+00	2.83E+00	-8.28E-01	2.23E+00	2.31E+00	-1.92E+00	1.28E-01	1.50E+01	5.66E+03	1.65E+01	ND	ND	ND	MW-49-26
	3	010			8/9/2007	11:17	6.72E103	9.50E102	4.62E 02	1.43E101	2.16E100	9.06E-01	4.09E-01	3.72E100	4.23E100	2.50E100	3.51E100	4.54E106	7.93E-01	2.07E 01	2.42E101						
	1	011			1/28/2008	16:28	4.21E103	5.76E102	2.98E 02	2.29E101	2.40E100	8.32E-01	-1.19E 00	1.95E100	2.07E100	4.31E-01	1.97E100	2.29E106	5.16E100	1.53E 01	1.75E101						
	3	013			7/30/2008	15:03	3.96E+03	1.73E+02	1.30E-02	1.62E+01	1.27E+00	8.36E-01	-9.73E-01	1.74E+00	2.74E+00	1.31E+00	2.17E+00	3.93E+00	-2.81E+00	1.64E-01	2.92E+01						
MW-49-42	2	009	37.0	-22.3	6/26/2007	12:30	4.44E+03	2.90E+02	1.86E-02	2.08E+01	1.65E+00	6.22E-01	-3.62E-01	4.56E+00	4.32E+00	-2.09E+00	3.66E+00	3.54E+00	-5.19E+00	1.30E-01	1.54E+01	3.52E+03	2.44E+01	ND	ND	ND	MW-49-42
	3	010			8/9/2007	12:05	4.30E+03	7.91E+02	4.59E-02	2.56E+01	2.77E+00	8.29E-01	-1.17E-00	3.27E+00	3.37E+00	2.77E+00	3.52E+00	4.56E+00	4.03E-01	2.10E-01	2.46E+01						
	1	011			1/28/2008	15:49	2.81E+03	4.92E+02	2.98E-02	2.94E+01	2.57E+00	5.58E-01	8.66E-01	2.10E+00	2.43E+00	8.96E-01	2.13E+00	2.52E+00	5.79E+00	1.73E-01	1.97E+01						
	3	013			7/30/2008	15:06	2.52E+03	1.45E+02	1.30E-02	2.16E+01	1.41E+00	6.09E-01	4.49E-01	1.59E+00	2.79E+00	7.96E-01	1.70E+00	3.09E+00	-2.73E+00	1.59E-01	2.84E+01						
MW-49-65	2	009	61.0	-46.4	6/26/2007	12:30	2.62E+03	2.45E+02	1.85E-02	1.58E+01	1.58E+00	8.28E-01	-1.36E-03	3.06E+00	3.38E+00	-3.59E+00	4.30E+00	2.75E+00	-7.43E+00	1.41E-01	1.68E+01	2.11E+03	2.04E+01	ND	ND	ND	MW-49-65
	3	010			8/9/2007	11:20	2.41E+03	6.42E+02	4.60E-02	2.08E+01	2.40E+00	9.11E-01	3.44E-01	2.76E+00	3.13E+00	1.65E+00	3.03E+00	3.73E+00	3.50E+00	2.14E-01	2.49E+01						
	1	011			1/28/2008	16:52	1.85E+03	4.22E+02	2.95E-02	2.73E+01	2.79E+00	6.29E-01	2.83E+00	3.72E+00	3.81E+00	-1.63E+00	3.17E+00	3.09E+00	1.01E+01	1.95E-01	2.20E+01						
	3	013			7/30/2008	13:58	1.56E+03	1.23E+02	1.30E-02	1.78E+01	1.29E+00	5.51E-01	-4.77E-01	2.20E+00	3.63E+00	8.42E-02	2.02E+00	3.39E+00	-6.53E+00	1.67E-01	2.96E+01						
MW-50-42[11]	3	010	27.0	-12.1	7/26/2007	11:20	1.45E+02	1.74E+02	1.93E-02	1.94E+01	1.81E+00	5.31E-01	-5.50E-00	4.71E+00	3.68E+00	2.53E+00	3.39E+00	4.32E+00	4.92E+00	1.91E-01	2.19E+01	4.93E+02	1.39E+01	ND	ND	ND	MW-50-42
	4	011			10/18/2007	14:08	1.01E+02	1.76E+02	1.97E-02	2.45E+01	2.52E+00	5.74E-01	3.02E-01	3.38E+00	3.87E+00	6.26E-01	3.75E+00	3.81E+00	0.00E+00	NA	NA						
	1	013			2/26/2008	12:19	6.13E+02	2.94E+02	2.87E-02	2.40E+00	8.61E-01	7.34E-01	-1.95E-00	4.80E+00	4.66E+00	1.77E+00	3.90E+00	4.68E+00	1.71E+01	2.40E-01	2.67E+01						
	3	014			7/31/2008	15:43	3.73E+02	1.34E+02	1.91E-02	9.28E+00	8.66E-01	4.39E-01	-9.40E-01	1.99E+00	3.20E+00	9.53E-01	1.91E+00	3.41E+00	1.58E+01	1.76E-01	2.96E+01						
MW-50-66	3	010	60.0	-45.1	7/26/2007	11:25	4.50E+03	3.39E+02	2.04E-02	3.10E+01	2.50E+00	5.78E-01	-1.12E-00	4.54E+00	4.18E+00	1.08E-02	3.46E+00	3.94E+00	1.93E+01	1.86E-01	2.02E+01	3.70E+03	3.68E+01	ND	ND	ND	MW-50-66
	4	011			10/18/2007	14:38	3.83E+03	6.53E+02	3.62E-02	4.74E+01	3.72E+00	7.97E-01	-2.28E-00	4.61E+00	4.36E+00	1.65E+00	4.20E+00	4.96E+00	0.00E+00	NA	NA						
	1	013			2/26/2008	13:46	3.74E+03	7.98E+02	5.31E-02	3.58E+01	2.36E+00	7.40E-01	7.87E-01	2.69E+00	3.18E+00	2.54E-01	2.54E+00	2.96E+00	4.87E+00	1.86E-01	2.12E+01						
	3	016			7/31/2008	17:02	2.71E+03	2.48E+02	1.91E-02	3.30E+01	1.59E+00	4.02E-01	2.31E+00	1.82E+00	3.43E+00	6.64E-01	1.46E+00	2.68E+00	3.58E+00	1.40E-01	2.43E+01						

IPEC00201765

TABLE 3
2007-2008 GROUNDWATER ANALYTICAL RESULTS
AND AVERAGES
INDIAN POINT ENGERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLING QUARTER[2]	SAMPLE ID	SAMPLE ZONE CENTER, Depth Ft Below Top of Casing[3]	SAMPLE ZONE CENTER, Elevation Ft msl[3]	SAMPLE COLLECTION		ANALYSIS RESULTS															YEARLY ROLLING AVERAGES[4]					Well ID
							TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			TRITIUM (pCi/L)	Sr-90 (pCi/L)	Cs-137 (pCi/L)	Co-60 (pCi/L)	Ni-63 (pCi/L)	
					Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Average	Average	Average	Average	Average	
MW-51-40[12]	3	002	39.7	28.0	7/24/2007	15:30	2.23E+02	1.59E+02	1.60E−02	7.09E-02	4.71E-01	5.38E-01	1.65E-02	3.39E+00	3.85E+00	-1.32E+00	4.02E+00	4.13E+00	NA	NA	NA	2.76E+02	ND	ND	ND	NA	MW-51-40
	4	004			11/9/2007	15:40	1.47E+02	1.55E+02	1.70E−02	-8.16E-02	3.87E-01	4.32E-01	1.68E+00	2.96E+00	3.52E+00	-5.71E-02	3.15E+00	3.49E+00	NA	NA	NA						
	1	005			1/8/2008	10:47	5.86E+01	1.56E+02	1.79E−02	1.57E-01	6.77E-01	8.32E-01	1.83E-02	2.66E+00	2.93E+00	7.71E-01	2.75E+00	2.87E+00	NA	NA	NA						
	3	008			8/8/2008	14:40	3.29E+02	1.60E+02	2.03E−02	3.74E-01	4.02E-01	6.70E-01	1.59E+00	2.19E+00	3.98E+00	-1.99E-01	1.79E+00	2.99E+00	-8.33E+00	1.02E−01	1.83E+01						
MW-51-79	3	002	78.7	-11.0	7/24/2007	17:00	4.24E+01	1.43E+02	1.67E−02	8.02E-03	5.35E-01	6.15E-01	-6.37E-01	3.88E+00	4.21E+00	-2.83E-01	4.51E+00	4.93E+00	NA	NA	NA	ND	ND	ND	ND	NA	MW-51-79
	4	004			11/9/2007	16:18	5.00E+01	1.50E+02	1.71E−02	-4.97E-02	2.99E-01	3.52E-01	2.66E+00	2.97E+00	3.56E+00	-2.43E-01	4.02E+00	4.45E+00	NA	NA	NA						
	1	005			1/8/2008	10:08	9.26E+01	1.59E+02	1.79E−02	-4.64E-01	7.01E-01	9.74E-01	-7.91E-01	2.22E+00	2.42E+00	2.58E-01	2.37E+00	2.70E+00	NA	NA	NA						
	3	008			8/8/2008	12:55	1.61E+02	1.31E+02	2.01E−02	2.03E-01	2.99E-01	5.18E-01	9.63E-01	2.17E+00	3.82E+00	5.64E-01	2.30E+00	3.98E+00	-1.07E+01	1.07E−01	1.93E+01						
MW-51-104	3	002	103.7	-36.0	7/24/2007	17:06	9.07E+01	1.47E+02	1.64E−02	3.62E-01	4.86E-01	5.41E-01	-4.20E−00	4.62E+00	3.92E+00	1.42E+00	4.44E+00	5.33E+00	NA	NA	NA	2.82E+02	ND	ND	ND	NA	MW-51-104
	4	004			11/9/2007	14:35	5.17E+01	1.50E+02	1.70E−02	-2.40E-01	3.13E-01	3.86E-01	-1.26E−00	2.85E+00	2.92E+00	1.15E+00	2.61E+00	3.18E+00	NA	NA	NA						
	1	005			1/8/2008	12:15	-4.84E+00	1.45E+02	1.78E−02	-6.19E-02	7.22E-01	9.34E-01	-9.37E-01	2.09E+00	2.26E+00	-3.84E-01	2.54E+00	2.50E+00	NA	NA	NA						
	3	006			8/8/2008	10:50	2.82E+02	1.55E+02	2.08E−02	-2.66E-01	4.00E-01	7.92E-01	1.56E+00	2.63E+00	3.60E+00	-1.21E-01	2.07E+00	3.38E+00	-4.19E+00	1.34E−01	2.36E+01						
MW-51-135	3	002	135.2	-67.5	7/24/2007	12:40	9.51E+01	1.43E+02	1.59E−02	5.33E-02	5.04E-01	5.76E-01	-4.55E-01	4.07E+00	4.36E+00	3.42E-01	3.30E+00	3.84E+00	NA	NA	NA	2.09E+02	ND	ND	ND	NA	MW-51-135
	4	004			11/9/2007	11:55	9.83E+01	1.53E+02	1.72E−02	-2.42E-01	2.54E-01	3.18E-01	-7.27E-01	3.46E+00	3.70E+00	-3.14E-01	3.29E+00	3.66E+00	NA	NA	NA						
	1	005			1/8/2008	13:20	4.91E+01	1.55E+02	1.80E−02	3.47E-02	7.01E-01	8.79E-01	6.30E-02	1.88E+00	2.09E+00	1.43E-02	1.71E+00	1.90E+00	NA	NA	NA						
	3	006			8/8/2008	11:50	2.09E+02	1.39E+02	1.99E−02	5.09E-02	2.40E-01	4.57E-01	-1.03E−00	2.08E+00	3.29E+00	1.61E-02	2.01E+00	3.31E+00	-6.78E+00	1.14E−01	2.02E+01						
MW-51-163	3	002	162.7	-95.0	7/24/2007	14:05	4.98E+01	1.44E+02	1.66E−02	1.05E-01	4.58E-01	5.21E-01	-2.43E-01	3.44E+00	3.78E+00	8.64E-02	3.25E+00	3.63E+00	NA	NA	NA	ND	ND	ND	ND	NA	MW-51-163
	4	004			11/9/2007	13:32	7.30E101	1.52E102	1.71E 02	2.08E-01	2.82E-01	3.12E-01	1.41E-01	3.54E100	3.51E100	-1.11E100	3.01E100	3.11E100	NA	NA	NA						
	1	005			1/8/2008	13:57	-1.99E101	1.47E102	1.82E 02	4.40E-01	8.22E-01	9.29E-01	-1.74E 00	2.66E100	2.46E100	8.69E-02	2.15E100	2.44E100	NA	NA	NA						
	3	006			8/8/2008	11:16	6.92E101	8.27E101	1.40E 02	-1.22E-01	2.63E-01	5.44E-01	-1.54E 00	2.25E100	3.56E100	3.78E-01	1.97E100	3.39E100	4.33E100	1.26E 01	2.15E101						
MW-51-189	3	002	189.2	-121.5	7/24/2007	13:15	9.49E+01	1.46E+02	1.63E−02	3.93E-01	4.08E-01	4.48E-01	-8.87E-01	4.11E+00	3.58E+00	1.57E+00	4.02E+00	4.31E+00	NA	NA	NA	ND	ND	ND	ND	NA	MW-51-189
	4	004			11/9/2007	13:03	-6.26E+00	1.48E+02	1.71E−02	1.93E-01	3.61E-01	4.08E-01	3.04E+00	3.27E+00	4.07E+00	-8.07E-02	3.65E+00	4.05E+00	NA	NA	NA						
	1	005			1/8/2008	13:10	-4.82E+00	1.44E+02	1.77E−02	-3.17E-02	7.01E-01	8.92E-01	1.35E+00	2.13E+00	2.49E+00	1.42E+00	1.98E+00	2.41E+00	NA	NA	NA						
	3	006			8/8/2008	11:17	1.10E+02	8.97E+01	1.43E−02	-1.43E-01	3.38E-01	6.60E-01	-2.27E−00	2.13E+00	3.12E+00	-1.79E+00	2.70E+00	3.57E+00	-5.89E+00	1.15E−01	2.04E+01						
MW-52-11	2	001	10.0	6.8	6/20/2007	12:35	1.47E+02	1.68E+02	1.84E−02	-3.58E-01	6.33E-01	8.33E-01	1.96E+00	2.54E+00	2.99E+00	6.12E-01	2.29E+00	2.65E+00	-4.56E+00	1.28E−01	1.54E+01	ND	ND	ND	ND	ND	MW-52-11
	3	002			8/6/2007	16:18	7.71E+01	1.73E+02	1.94E−02	-5.43E-01	6.12E-01	9.38E-01	-2.16E−00	3.42E+00	3.23E+00	3.39E-02	2.79E+00	3.12E+00	NA	NA	NA						
MW-52-18	2	001	17.5	-2.6	5/24/2007	10:44	1.62E+02	1.52E+02	1.65E−02	-2.20E-01	4.98E-01	7.30E-01	6.53E-01	3.19E+00	3.74E+00	3.13E+00	3.30E+00	4.22E+00	-1.09E+00	9.82E−00	1.14E+01	ND	ND	ND	ND	ND	MW-52-18
	3	002			8/6/2007	13:45	6.73E+01	1.74E+02	1.96E−02	-7.91E-02	6.92E-01	8.93E-01	-1.43E−00	3.54E+00	3.67E+00	1.11E-01	3.15E+00	3.54E+00	NA	NA	NA						
MW-52-48	2	001	48.0	-33.1	5/24/2007	11:35	7.02E+01	1.48E+02	1.67E−02	-3.61E-01	7.44E-01	1.01E+00	3.66E-01	2.94E+00	3.39E+00	-9.91E-01	3.03E+00	3.11E+00	-2.74E+00	8.16E−00	9.55E+00	ND	ND	ND	ND	ND	MW-52-48
	3	002			8/6/2007	14:00	1.15E+02	1.76E+02	1.96E−02	-5.59E-01	4.83E-01	7.33E-01	7.85E-01	3.24E+00	3.75E+00	4.31E-01	3.29E+00	3.75E+00	NA	NA	NA						
MW-52-64	2	001	64.0	-49.1	5/24/2007	14:44	3.82E+00	1.70E+02	1.98E−02	-3.20E-01	7.68E-01	9.77E-01	-1.03E−00	3.25E+00	3.45E+00	8.00E-01	3.54E+00	4.11E+00	-2.85E+00	9.12E−00	1.07E+01	ND	ND	ND	ND	ND	MW-52-64
	3	002			8/6/2007	15:50	3.72E+01	1.71E+02	1.96E−02	-1.70E-02	7.22E-01	9.23E-01	5.10E-01	3.50E+00	3.68E+00	1.80E+00	6.08E+00	4.12E+00	NA	NA	NA						
MW-52-122	2	001	122.0	-107.1	5/24/2007	14:55	6.78E+01	1.47E+02	1.66E−02	-4.24E-01	6.62E-01	9.64E-01	2.52E+00	3.59E+00	3.62E+00	-1.76E+00	3.38E+00	3.29E+00	-1.94E+00	9.68E−00	1.13E+01	ND	ND	ND	ND	ND	MW-52-122
	3	002			8/6/2007	12:05	4.42E+01	1.71E+02	1.96E−02	-4.19E-01	7.10E-01	9.60E-01	1.99E+00	4.09E+00	4.34E+00	2.10E-01	4.13E+00	4.70E+00	NA	NA	NA						
MW-52-162	2	001	161.5	-146.6	5/24/2007	11:55	2.82E+02	1.95E+02	2.03E−02	-5.15E-01	4.87E-01	8.12E-01	-5.80E-01	3.59E+00	3.29E+00	1.59E+00	3.15E+00	3.88E+00	-7.54E-01	9.75E−00	1.13E+01	2.47E+02	ND	ND	ND	ND	MW-52-162
	3	002			8/6/2007	11:30	2.11E+02	1.80E+02	1.95E−02	1.53E-02	4.79E-01	6.03E-01	3.61E-02	3.44E+00	3.77E+00	-3.73E-02	3.12E+00	3.52E+00	NA	NA	NA						
MW-52-181	2	001	181.0	-166.1	5/24/2007	12:05	2.48E+02	1.94E+02	2.04E−02	-3.19E-01	5.07E-01	7.58E-01	-5.99E-01	3.30E+00	3.52E+00	-2.81E-01	3.74E+00	4.19E+00	-2.23E-01	1.01E−01	1.17E+01	2.48E+02	ND	ND	ND	ND	MW-52-181
	3	002			8/6/2007	11:40	1.19E+02	1.77E+02	1.97E−02	5.84E-02	5.56E-01	6.77E-01	-1.21E−00	2.87E+00	2.97E+00	1.28E+00	2.96E+00	3.57E+00	NA	NA	NA						
MW-53-82	3	004	75.0	-4.7	8/9/2007	11:31	7.76E+02	2.06E+02	2.04E−02	-3.41E-02	6.87E-01	8.82E-01	6.29E-01	2.33E+00	2.76E+00	-1.05E+00	2.17E+00	2.17E+00	-2.21E+00	1.99E−01	2.36E+01	1.01E+03	6.95E-01	ND	ND	ND	MW-53-82
	4	005			10/24/2007	13:53	1.11E+03	4.71E+02	4.03E−02	2.35E-01	3.11E-01	3.43E-01	3.07E-01	2.71E+00	3.05E+00	-1.06E+00	2.44E+00	2.38E+00	-1.59E+00	2.09E−01	2.41E+01						
	1	006			1/21/2008	12:52	9.42E+02	1.86E+02	1.71E−02	2.19E-01	4.28E-01	4.87E-01	0.00E+00	5.42E+00	3.23E+00	-1.36E+00	2.84E+00	2.81E+00	3.84E+00	1.85E−01	2.11E+01						
	3	008			8/4/2008	12:25	1.21E+03	1.84E+02	1.91E−02	6.95E-01	3.04E-01	3.94E-01	2.79E+00	2.26E+00	4.16E+00	2.55E-02	2.14E+00	3.58E+00	1.15E+01	1.24E−01	2.09E+01						
MW-53-120	3	004	105.0	-34.7	8/9/2007	12:45	8.03E+03	1.02E+03	4.59E−02	3.70E+01	3.18E+00	9.24E-01	1.37E+00	3.62E+00	4.27E+00	-1.59E-01	3.74E+00	4.17E+00	1.95E+01	2.14E−01	2.35E+01	7.18E+03	3.42E+01	ND	ND	2.65E+01	MW-53-120
	4	005			10/24/2007	13:38	7.40E103	9.29E102	4.02E 02	3.81E101	2.27E100	4.82E-01	-5.34E-01	3.51E100	3.29E100	-2.23E-01	3.35E100	3.72E106	7.06E100	2.10E 01	2.38E101						
	1	006			1/21/2008	10:43	7.48E103	3.48E102	1.72E 02	3.12E101	2.40E100	6.46E-01	1.38E100	3.02E100	3.18E100	1.14E-01	3.30E100	3.71E106	1.71E101	1.85E 01	2.02E101						
	3	009			8/4/2008	10:15	5.80E+03	3.46E+02	1.91E−02	3.03E+01	1.52E+00	3.11E-01	-9.74E-01	1.93E+00	3.02E+00	-1.15E-01	2.33E+00	3.20E+00	2.65E+01	1.30E−01	2.11E+01						
MW-54-37	3	002	36.5	-23.4	7/31/2007	10:30	8.88E+02	4.14E+02	2.68E−02	5.30E+00	1.11E+00	6.26E-01	1.46E+00	2.54E+00	3.03E+00	-2.64E-02	2.82E+00	3.13E+00	-4.74E+00	1.83E−01	2.14E+01	9.87E+02	3.87E+00	ND	ND	ND	MW-54-37
	4	003			10/19/2007	13:25	1.04E+03	4.26E+02	3.66E−02	6.19E+00	1.37E+00	6.14E-01	6.04E-01	3.30E+00	3.84E+00	6.61E-01	3.54E+00	4.19E+00	1.04E+01	1.59E−01	1.77E+01						
	1	004			1/15/2008	13:18	1.07E+03	4.97E+02	4.18E−02	5.79E+00	1.47E+00	7.26E-01	7.48E-02	2.81E+00	3.11E+00	1.03E+00	2.79E+00	3.00E+00	-1.88E-01	2.06E−01	2.43E+01						
	3	006			7/22/2008	17:00	9.50E+02	1.08E+02	1.31E−02	6.20E+00	7.50E-01	4.63E-01	1.34E+00	2.22E+00	3.94E+00	-4.43E-01	2.09E+00	3.34E+00	1.42E+00	1.68E−01	2.95E+01						
MW-54-58	3	002	57.5	-44.4	7/31/2007	9:55	6.93E+02	3.72E+02	2.62E−02	1.76E+00	8.53E-01	7.32E-01	-1.32E−00	3.12E+00	3.23E+00	8.17E-03	3.01E+00	3.35E+00	1.97E-01	1.80E−01	2.08E+01	6.20E+02	1.93E+00	ND	ND	ND	MW-54-58
	4	003			10/19/2007	13:35	5.61E+02	2.00E+02	1.94E−02	4.38E-01	8.43E-01	9.36E-01	-2.08E-01	3.03E+00	3.40E+00	3.56E-01	2.96E+00	3.39E+00	2.09E+00	1.59E−01	1.81E+01						
	1	004			1/15/2008	13:45	6.47E+02	4.40E+02	4.18E−02	2.32E+00	1.09E+00	8.13E-01	2.16E+00	4.59E+00	3.18E+00	-7.34E-01	3.06E+00	3.27E+00	4.41E+00	2.34E−01	2.71E+01						
	3	006			7/22/2008	17:05	5.78E+02	9.64E+01	1.31E−02	1.71E+00	5.24E-01	6.47E-01	3.78E-01	2.07E+00	3.59E+00	-1.41E-01	2.67E+00	4.23E+00	1.37E+01	1.69E−01	2.85E+01						
MW-54-123	3	002	123.0	-109.9	7/31/2007	11:10	9.63E+02	4.29E+02	3.69E−02	1.35E+01	1.47E+00	8.87E-01	0.00E+00	4.68E+00	4.49E+00	2.95E+00	4.02E+00	5.06E+00	-3.63E+00	1.86E−01	2.17E+01	7.02E+02	1.03E+01	ND	ND	ND	MW-54-123
	4	003			10/19/2007	12:09	7.01E+02	3.87E+02	3.62E−02	1.16E+01	1.88E+00	8.13E-01	4.02E-02	3.51E+00	3.88E+00	-1.72E+00	3.65E+00	3.68E+00	-4.31E-01	2.19E−01	2.51E+01						
	1	004			1/15/2008	10:52	5.33E+02	4.23E+02	4.18E−02	9.36E+00	1.92E+00	7.51E-01	8.25E-01	3.48E+00	3.94E+00	4.41E-01	3.00E+00	3.42E+00	6.86E+00	2.25E−01	2.58E+01						
	3	006			7/22/2008	15:30	6.12E+02	9.77E+01	1.32E−02	6.52E+00	8.13E-01	5.56E-01	-2.82E-01	2.22E+00	3.72E+00	-2.93E+00	2.52E+00	3.53E+00	4.33E+00	1.57E−01	2.73E+01						
MW-54-144	3	002	144.0	-130.9	7/31/2007	13:33	1.89E+03	5.67E+02	2.66E−02	1.92E+01	1.98E+00	6.71E-01	-1.19E−00	2.90E+00	3.03E+00	5.02E-02	3.33E+00	3.77E+00	-6.13E+00	1.89E−01	2.23E+01	1.49E+03	1.68E+01	ND	ND	ND	MW-54-144
	4	003			10/19/2007	12:12	1.54E+03	4.73E+02	3.62E−02	1.58E+01	2.15E+00	7.69E-01	8.53E-01	2.85E+00	3.35E+00	-4.41E-01	3.18E+00	3.39E+00	4.35E-01	1.54E−01	1.78E+01						
	1	004			1/15/2008	11:22	1.40E+03	5.34E+02	4.16E−02	1.53E+01	2.34E+00	8.48E-01	3.67E+00	5.04E+00	4.39E+00	4.86E-02	3.96E+00	4.34E+00	9.81E+00	2.24E−01	2.54E+01						
	3	006			7/22/2008	15:35	1.13E+03	1.13E+02	1.31E−02	1.69E+01	1.23E+00	5.01E-01	1.57E+00	1.91E+00	3.48E+00	-4.98E-01	2.43E+00	3.49E+00	1.11E+01	1.69E−01	2.87E+01						

See Page 8 for Notes

IPEC00201766

TABLE 3
2007-2008 GROUNDWATER ANALYTICAL RESULTS
AND AVERAGES
INDIAN POINT ENGERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLING QUARTER[2]	SAMPLE ID	SAMPLE ZONE CENTER, Depth Ft Below Top of Casing[3]	SAMPLE ZONE CENTER, Elevation Ft msl[3]	SAMPLE COLLECTION		ANALYSIS RESULTS															YEARLY ROLLING AVERAGES[4]					Well ID
							TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			TRITIUM (pCi/L)	Sr-90 (pCi/L)	Cs-137 (pCi/L)	Co-60 (pCi/L)	Ni-63 (pCi/L)	
					Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Average	Average	Average	Average	Average	
MW-54-173	3	002	172.5	-159.4	7/31/2007	13:40	2.08E+03	5.94E+02	2.68E-02	1.45E+01	1.85E+00	8.29E-01	7.90E-01	2.63E+00	3.10E+00	7.75E-01	2.22E+00	2.74E+00	3.92E+00	1.81E-01	2.07E+01	1.97E+03	1.41E+01	ND	ND	ND	MW-54-173
	4	003			10/19/2007	12:14	1.91E+03	5.07E+02	3.63E-02	1.49E+01	2.07E+00	6.21E-01	1.05E+00	3.29E+00	3.79E+00	-3.08E-01	2.87E+00	3.18E+00	1.37E+00	1.49E-01	1.70E+01						
	1	004			1/15/2008	11:15	1.84E+03	5.84E+02	4.16E-02	1.41E+01	1.80E+00	9.29E-01	-3.68E-01	2.81E+00	3.08E+00	5.21E-01	3.00E+00	3.49E+00	4.79E+00	2.30E-01	2.65E+01						
	3	006			7/22/2008	15:51	2.05E+03	1.35E+02	1.30E-02	1.29E+01	1.08E+00	5.25E-01	-6.92E-02	2.07E+00	3.52E+00	-1.62E+00	2.11E+00	3.15E+00	7.86E+00	1.59E-01	2.72E+01						
MW-54-190	3	002	190.0	-176.9	7/31/2007	13:45	2.25E+03	6.12E+02	2.66E-02	1.79E+01	2.15E+00	7.59E-01	-2.13E-00	3.35E+00	3.12E+00	9.32E-01	3.09E+00	3.67E+00	-3.07E+00	1.66E-01	1.94E+01	1.97E+03	1.97E+01	ND	ND	ND	MW-54-190
	4	003			10/19/2007	12:20	2.13E+03	5.24E+02	3.60E-02	2.04E+01	2.46E+00	7.97E-01	-1.04E-00	3.45E+00	3.07E+00	7.41E-01	4.05E+00	3.33E+00	0.00E+00	NA	NA						
	1	004			1/15/2008	11:37	2.24E+03	6.26E+02	4.16E-02	1.93E+01	2.54E+00	8.15E-01	6.45E-01	2.64E+00	3.11E+00	-3.88E-01	2.28E+00	2.50E+00	9.23E+00	2.42E-01	2.75E+01						
	3	006			7/22/2008	15:50	1.25E+03	1.15E+02	1.30E-02	2.13E+01	1.37E+00	5.60E-01	8.45E-01	1.98E+00	3.41E+00	-1.64E+00	2.06E+00	3.02E+00	-8.42E+00	1.61E-01	2.92E+01						
MW-55-24	3	003	16.0	2.3	8/2/2007	11:17	2.71E+03	7.28E+02	5.47E-02	2.31E+01	2.67E+00	9.19E-01	-4.91E-01	2.79E+00	3.02E+00	1.40E+00	2.94E+00	3.47E+00	-7.94E+00	1.91E-01	2.31E+01	1.86E+03	2.27E+01	3.33E+00	ND	ND	MW-55-24
	4	004			10/16/2007	10:15	2.20E+03	5.36E+02	3.68E-02	2.29E+01	2.61E+00	8.43E-01	6.26E-01	3.63E+00	4.21E+00	7.46E-01	3.29E+00	3.47E+00	NA	NA	NA						
	1	005			1/28/2008	12:57	1.14E+03	3.65E+02	2.96E-02	2.26E+01	2.46E+00	9.24E-01	3.33E+00	3.26E+00	2.50E+00	1.04E+00	1.55E+00	2.51E+00	1.44E+01	1.82E-01	2.00E+01						
	3	007			8/1/2008	13:15	1.40E+03	1.93E+02	1.91E-02	2.22E+01	1.36E+00	5.73E-01	-7.37E-03	2.19E+00	3.69E+00	2.85E+00	2.34E+00	4.16E+00	6.11E+00	1.24E-01	2.11E+01						
MW-55-35	3	003	32.0	-13.8	8/2/2007	11:20	3.68E+03	7.91E+02	5.30E-02	3.40E+01	3.45E+00	8.95E-01	9.35E-01	3.19E+00	3.24E+00	7.69E-01	2.23E+00	2.70E+00	2.90E+00	1.96E-01	2.28E+01	3.21E+03	2.94E+01	ND	ND	ND	MW-55-35
	4	004			10/16/2007	10:02	5.09E+03	7.34E+02	3.63E-02	3.16E+01	3.04E+00	1.04E+00	2.62E+00	3.36E+00	3.58E+00	1.44E+00	3.44E+00	4.20E+00	NA	NA	NA						
	1	005			1/28/2008	11:46	2.33E+03	4.59E+02	2.97E-02	2.64E+01	2.60E+00	5.21E-01	-5.28E-01	2.12E+00	2.26E+00	-6.90E-01	2.19E+00	2.32E+00	1.12E+01	1.76E-01	1.96E+01						
	3	007			8/1/2008	10:47	1.73E+03	2.08E+02	1.91E-02	2.54E+01	1.42E+00	4.28E-01	3.51E-01	2.17E+00	3.74E+00	2.59E-01	2.33E+00	3.99E+00	1.26E+01	1.23E-01	2.05E+01						
MW-55-54	3	003	47.0	-28.8	8/2/2007	12:00	9.91E+03	1.19E+03	5.51E-02	2.22E+01	2.36E+00	9.10E-01	-1.09E-00	3.69E+00	3.80E+00	1.46E+00	2.87E+00	3.56E+00	6.13E+00	1.99E-01	2.28E+01	8.50E+03	2.26E+01	ND	ND	ND	MW-55-54
	4	004			10/16/2007	10:05	1.03E104	9.96E102	3.61E 02	2.23E101	2.49E100	6.15E-01	-9.80E-01	2.82E100	3.02E100	8.60E-01	3.65E100	2.99E100	NA	NA	NA						
	1	005			1/28/2008	11:42	7.48E103	7.35E102	2.97E 02	2.28E101	2.40E100	5.39E-01	-8.47E-01	2.16E100	2.30E100	-1.29E100	2.81E100	2.20E100	1.09E101	1.86E 01	2.09E101						
	3	007			8/1/2008	10:38	6.31E103	3.59E102	1.91E 02	2.32E101	1.30E100	3.56E-01	6.53E-01	2.07E100	3.52E100	1.29E100	1.79E100	3.30E100	1.82E101	1.26E 01	2.08E101						
MW-56-53	2	002	52.0	18.3	6/26/2007	10:51	2.89E+02	1.70E+02	1.82E-02	-4.49E-02	5.50E-01	6.66E-01	-5.30E-01	4.46E+00	4.11E+00	2.93E+00	4.88E+00	4.84E+00	1.30E+00	1.41E-01	1.62E+01	2.56E+02	ND	ND	ND	ND	MW-56-53
	3	003			8/10/2007	12:25	2.16E+02	1.86E+02	2.03E-02	-5.66E-01	6.10E-01	9.04E-01	8.31E-01	2.79E+00	3.21E+00	3.99E-02	2.56E+00	2.85E+00	NA	NA	NA						
	1	004			1/31/2008	12:30	2.63E+02	1.27E+02	1.31E-02	5.70E-01	8.81E-01	9.77E-01	3.38E-01	3.69E+00	3.87E+00	5.97E-01	3.48E+00	3.99E+00	1.74E+00	1.55E-01	1.80E+01						
MW-56-83	2	004	74.0	-3.7	6/22/2007	10:44	1.85E+03	5.76E+02	4.30E-02	1.87E+00	1.15E+00	1.09E+00	1.47E-01	3.39E+00	3.85E+00	-1.87E+00	2.82E+00	2.46E+00	3.95E+00	1.27E-01	1.46E+01	1.76E+03	2.62E+00	ND	ND	ND	MW-56-83
	3	005			8/10/2007	11:10	1.49E+03	5.52E+02	4.55E-02	2.43E+00	1.05E+00	9.23E-01	-9.15E-01	3.86E+00	4.02E+00	1.87E-01	2.75E+00	3.15E+00	NA	NA	NA						
	1	006			1/31/2008	9:30	1.94E+03	1.97E+02	1.34E-02	3.56E+00	1.34E+00	9.49E-01	-8.03E-01	3.69E+00	3.23E+00	1.60E+00	2.78E+00	3.51E+00	6.57E-01	1.59E-01	1.85E+01						
MW-57-11	2	001	10.0	5.0	6/22/2007	12:17	4.61E+03	8.10E+02	4.36E-02	4.35E+01	3.96E+00	7.97E-01	2.29E+00	6.04E+00	4.31E+00	3.69E-02	3.87E+00	4.37E+00	2.24E+01	1.79E-01	1.91E+01	4.61E+03	4.17E+01	ND	ND	2.24E+01	MW-57-11
	3	002			8/6/2007	12:30	4.09E+03	3.21E+06	1.97E-02	3.79E+01	2.77E+00	5.36E-01	1.15E+00	3.78E+00	4.16E+00	3.95E-03	3.01E+00	3.41E+00	-5.75E-01	2.16E-01	2.50E+01						
MW-57-20	2	001	19.0	-4.0	6/22/2007	12:30	1.65E+03	5.58E+02	4.32E-02	1.96E+00	1.07E+00	9.67E-01	-1.33E-00	3.69E+00	3.90E+00	-9.51E-01	3.65E+00	3.84E+00	4.77E-01	1.36E-01	1.59E+01	1.32E+03	1.60E+00	ND	ND	ND	MW-57-20
	3	002			8/6/2007	12:15	9.96E+02	2.15E+02	1.96E-02	1.23E+00	6.67E-01	5.78E-01	1.21E+00	3.59E+00	3.64E+00	6.05E-01	2.75E+00	3.22E+00	-1.19E+01	2.06E-01	2.46E+01						
MW-57-45	2	002	40.0	-25.0	6/22/2007	12:55	9.53E+02	4.85E+02	4.35E-02	1.90E+00	1.05E+00	8.65E-01	-1.97E-01	3.40E+00	3.82E+00	-8.51E-01	3.50E+00	3.65E+00	6.46E-01	1.23E-01	1.43E+01	8.48E+02	2.23E+00	ND	ND	ND	MW-57-45
	3	003			8/6/2007	12:17	7.40E+02	2.07E+02	1.98E-02	2.55E+00	8.77E-01	6.09E-01	-3.91E-01	3.15E+00	3.42E+00	-1.89E-01	3.59E+00	3.35E+00	-1.15E+01	2.09E-01	2.49E+01						
MW-58-26	2	003	20.0	-5.4	6/21/2007	11:10	5.97E+02	2.00E+02	1.86E-02	1.04E+00	6.09E-01	5.25E-01	1.62E+00	2.42E+00	2.86E+00	-3.94E-01	2.42E+00	2.60E+00	1.07E+00	1.24E-01	1.45E+01	5.83E+02	1.03E+00	ND	ND	ND	MW-58-26
	3	004			7/31/2007	11:00	8.56E+02	3.99E+02	2.58E-02	1.02E+00	6.33E-01	5.78E-01	1.18E+00	3.31E+00	3.83E+00	4.20E-01	3.01E+00	3.51E+00	NA	NA	NA						
	1	005			1/22/2008	13:20	2.95E+02	1.62E+02	1.70E-02	-1.43E-01	4.65E-01	6.60E-01	9.19E-01	2.31E+00	2.67E+00	-5.41E-02	2.57E+00	2.61E+00	NA	NA	NA						
MW-58-65	2	003	54.0	-39.4	6/21/2007	11:10	3.15E+02	1.77E+02	1.81E-02	-1.90E-01	3.96E-01	5.60E-01	-2.19E-01	2.37E+00	2.65E+00	-2.89E+00	3.17E+00	2.36E+00	2.80E+00	1.26E-01	1.45E+01	3.23E+02	ND	ND	ND	ND	MW-58-65
	3	004			7/31/2007	11:00	3.42E+02	3.02E+02	2.72E-02	6.20E-03	5.19E-01	6.52E-01	2.18E+00	3.39E+00	3.37E+00	1.02E+00	3.24E+00	3.39E+00	NA	NA	NA						
	1	005			1/22/2008	12:00	3.13E+02	1.62E+02	1.69E-02	1.21E-01	5.85E-01	7.32E-01	5.54E-01	3.93E+00	3.92E+00	-1.23E-01	3.29E+00	3.05E+00	NA	NA	NA						
MW-59-32	2	003	27.0	-12.5	6/21/2007	15:25	4.67E+02	4.23E+02	4.36E-02	-6.68E-02	6.78E-01	9.11E-01	6.01E-01	3.96E+00	4.59E+00	-4.19E-01	4.46E+00	4.71E+00	-4.37E-01	1.24E-01	1.45E+01	3.18E+02	ND	ND	ND	ND	MW-59-32
	3	004			7/31/2007	14:35	1.69E+02	1.59E+02	1.63E-02	2.00E-01	6.72E-01	7.96E-01	2.26E-01	3.30E+00	3.73E+00	7.97E-01	3.19E+00	3.75E+00	NA	NA	NA						
MW-59-45	2	003	42.0	-27.5	6/21/2007	15:25	7.51E+02	4.59E+02	4.34E-02	-2.74E-01	6.86E-01	9.10E-01	-1.10E-01	2.50E+00	2.83E+00	8.14E-02	2.16E+00	2.49E+00	7.74E-01	1.47E-01	1.71E+01	5.02E+02	ND	ND	ND	ND	MW-59-45
	3	004			7/31/2007	13:58	2.49E+02	1.74E+02	1.65E-02	1.64E-01	5.90E-01	7.05E-01	4.48E-01	3.52E+00	3.70E+00	7.64E-01	3.35E+00	3.94E+00	NA	NA	NA						
MW-59-68	2	003	58.0	-43.5	6/21/2007	15:25	5.90E+02	4.41E+02	4.39E-02	2.97E-01	8.79E-01	1.03E+00	6.26E-01	3.50E+00	3.80E+00	1.27E+00	2.91E+00	3.62E+00	-4.23E+00	1.30E-01	1.56E+01	7.05E+02	ND	ND	ND	ND	MW-59-68
	3	004			7/31/2007	13:58	8.19E102	4.02E102	2.68E 02	3.66E-01	7.08E-01	7.98E-01	9.02E-01	2.88E100	2.95E100	3.72E-01	2.77E100	3.17E100	NA	NA	NA						
MW-60-35	3	002	34.9	-22.4	7/27/2007	13:07	7.61E102	2.40E102	1.78E 02	6.48E-02	3.80E-01	4.66E-01	5.95E-01	4.26E100	3.23E100	-3.31E-01	3.07E100	3.39E100	NA	NA	NA	3.80E102	ND	ND	ND	ND	MW-60-35
	4	003			10/9/2007	13:20	1.84E+02	1.48E+02	1.51E-02	3.01E-01	5.97E-01	6.78E-01	1.51E+00	6.66E+00	3.54E+00	0.00E+00	2.64E+00	2.61E+00	NA	NA	NA						
	1	004			1/14/2008	17:03	7.78E+01	1.58E+02	1.78E-02	5.05E-01	8.10E-01	8.98E-01	1.11E+00	3.21E+00	3.79E+00	-9.16E-01	3.36E+00	3.51E+00	NA	NA	NA						
	3	006			7/30/2008	16:10	1.93E+02	1.21E+02	1.91E-02	2.85E-01	3.50E-01	5.92E-01	1.81E+00	1.93E+00	3.50E+00	-1.19E+00	2.07E+00	3.20E+00	NA	NA	NA						
MW-60-53	3	002	53.4	-40.9	7/27/2007	12:59	1.23E+02	1.71E+02	1.87E-02	-4.72E-01	5.26E-01	7.31E-01	1.46E-01	3.01E+00	3.34E+00	7.87E-01	3.25E+00	3.79E+00	NA	NA	NA	ND	ND	ND	ND	ND	MW-60-53
	4	003			10/9/2007	12:22	1.13E+02	1.44E+02	1.56E-02	6.19E-01	6.50E-01	6.79E-01	-2.11E-00	3.39E+00	3.51E+00	3.62E-01	2.79E+00	3.21E+00	NA	NA	NA						
	1	004			1/14/2008	15:40	5.35E+01	1.55E+02	1.78E-02	-1.69E-01	5.28E-01	7.39E-01	-1.10E-00	2.78E+00	2.88E+00	-1.69E+00	2.94E+00	2.76E+00	NA	NA	NA						
	3	006			7/30/2008	13:23	1.28E+02	9.80E+01	1.63E-02	6.53E-01	5.33E-01	8.38E-01	-1.68E-01	2.09E+00	3.43E+00	1.05E+00	2.04E+00	3.63E+00	NA	NA	NA						
MW-60-72	3	002	72.4	-59.9	7/27/2007	13:22	1.10E+02	1.64E+02	1.81E-02	-3.27E-01	4.92E-01	5.76E-01	4.79E-01	3.96E+00	4.51E+00	-1.10E+00	3.94E+00	4.17E+00	NA	NA	NA	ND	5.64E-01	ND	ND	ND	MW-60-72
	4	003			10/9/2007	14:15	1.24E+02	1.43E+02	1.54E-02	1.64E-01	6.00E-01	7.12E-01	7.48E-01	3.78E+00	4.27E+00	6.12E-01	3.76E+00	4.33E+00	NA	NA	NA						
	1	004			1/14/2008	14:12	1.36E+02	1.65E+02	1.78E-02	1.58E-01	5.93E-01	7.23E-01	5.42E-03	3.33E+00	3.56E+00	8.47E-01	2.97E+00	3.54E+00	NA	NA	NA						
	3	006			7/30/2008	13:23	8.27E+01	9.69E+01	1.63E-02	5.64E-01	3.01E-01	4.27E-01	-8.79E-01	2.39E+00	3.91E+00	-1.11E+00	2.47E+00	3.96E+00	NA	NA	NA						
MW-60-135	3	002	134.9	-122.4	7/27/2007	16:00	3.92E+02	2.03E+02	1.81E-02	-2.13E-01	3.09E-01	4.69E-01	2.78E-02	2.70E+00	3.07E+00	1.78E-01	2.63E+00	3.04E+00	NA	NA	NA	4.46E+02	ND	ND	ND	ND	MW-60-135
	4	003			10/9/2007	14:20	5.20E+02	1.83E+02	1.50E-02	-2.59E-01	4.46E-01	6.31E-01	-1.55E-00	3.40E+00	3.52E+00	-8.88E-02	3.57E+00	3.91E+00	NA	NA	NA						
	1	004			1/14/2008	14:19	3.79E+02	1.89E+02	1.74E-02	-1.70E-01	6.17E-01	8.52E-01	-1.33E-00	3.14E+00	3.25E+00	4.22E-01	3.17E+00	3.59E+00	NA	NA	NA						
	3	006			7/30/2008	13:33	4.91E+02	1.42E+02	1.91E-02	1.70E-01	3.44E-01	6.18E-01	-4.68E-01	1.79E+00	2.88E+00	1.43E+00	2.00E+00	3.61E+00	NA	NA	NA						

IPEC00201767

See Page 8 for Notes

TABLE 3
2007-2008 GROUNDWATER ANALYTICAL RESULTS
AND AVERAGES
INDIAN POINT ENGERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLING QUARTER[2]	SAMPLE ID	SAMPLE ZONE CENTER, Depth Ft Below Top of Casing[3]	SAMPLE ZONE CENTER, Elevation Ft msl[3]	SAMPLE COLLECTION		ANALYSIS RESULTS															YEARLY ROLLING AVERAGES[4]					Well ID
							TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			TRITIUM (pCi/L)	Sr-90 (pCi/L)	Cs-137 (pCi/L)	Co-60 (pCi/L)	Ni-63 (pCi/L)	
					Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Average	Average	Average	Average	Average	
MW-60-154	3	002	154.4	-141.9	7/27/2007	16:18	4.62E+02	2.09E+02	1.79E-02	-1.53E-01	3.46E-01	4.09E-01	8.09E-01	4.23E+00	4.60E+00	3.74E+00	2.42E+00	3.80E+00	NA	NA	NA	5.29E+02	5.10E-01	ND	ND	ND	MW-60-154
	4	003			10/9/2007	14:23	5.80E+02	1.88E+02	1.50E-02	-1.92E-02	4.98E-01	6.33E-01	-1.63E-00	3.50E+00	3.68E+00	2.20E-01	3.30E+00	3.76E+00	NA	NA	NA						
	1	004			1/14/2008	12:35	5.59E+02	2.13E+02	1.79E-02	1.10E+00	1.17E+00	1.24E+00	1.59E+00	3.84E+00	4.46E+00	2.92E-01	4.35E+00	4.82E+00	NA	NA	NA						
	3	006			7/30/2008	13:35	5.16E+02	1.44E+02	1.91E-02	5.10E-01	2.52E-01	3.27E-01	-8.80E-01	2.67E+00	3.58E+00	4.30E-01	1.89E+00	3.23E+00	NA	NA	NA						
MW-60-176	3	002	175.9	-163.4	7/27/2007	17:35	8.49E+02	2.49E+02	1.78E-02	-4.60E-01	5.84E-01	7.37E-01	2.00E+00	3.29E+00	4.00E+00	-1.76E+00	3.15E+00	3.03E+00	NA	NA	NA	7.79E+02	ND	ND	ND	ND	MW-60-176
	4	003			10/9/2007	14:57	7.02E+02	2.01E+02	1.53E-02	-5.93E-02	5.11E-01	6.64E-01	-2.68E-01	2.63E+00	2.85E+00	3.91E-01	2.71E+00	3.09E+00	NA	NA	NA						
	1	004			1/14/2008	12:25	6.68E+02	2.25E+02	1.83E-02	-7.68E-02	7.89E-01	1.04E+00	2.22E-01	3.99E+00	4.52E+00	5.49E-01	3.54E+00	4.09E+00	NA	NA	NA						
	3	006			7/30/2008	14:08	8.95E+02	1.67E+02	1.91E-02	-2.08E-02	2.96E-01	5.88E-01	-3.15E-01	2.12E+00	3.44E+00	-2.05E-01	2.03E+00	3.34E+00	NA	NA	NA						
MW-62-18	3	002	13.5	1.2	7/26/2007	15:45	5.08E+02	2.13E+02	1.78E-02	4.68E-01	4.93E-01	5.35E-01	9.04E-01	3.75E+00	4.35E+00	-2.80E+00	4.88E+00	3.80E+00	NA	NA	NA	3.76E+02	1.17E+00	ND	ND	ND	MW-62-18
	4	003			10/10/2007	13:50	3.76E+02	1.73E+02	1.55E-02	1.80E+00	6.67E-01	4.87E-01	0.00E+00	3.39E+00	1.87E+00	-7.14E-02	1.71E+00	1.92E+00	NA	NA	NA						
	1	004			1/31/2008	15:15	3.50E+02	1.34E+02	1.34E-02	4.95E-01	7.55E-01	8.27E-01	1.18E+00	4.23E+00	4.46E+00	5.24E-01	3.38E+00	3.96E+00	NA	NA	NA						
	3	006			8/6/2008	12:55	2.69E+02	1.41E+02	2.25E-02	5.31E-01	3.30E-01	4.89E-01	9.66E-02	1.67E+00	2.82E+00	-1.26E-01	1.99E+00	3.33E+00	NA	NA	NA						
MW-62-37	3	002	34.5	-19.8	7/26/2007	15:35	2.50E+02	1.79E+02	1.75E-02	-2.57E-01	4.14E-01	5.18E-01	-6.88E-02	2.64E+00	2.94E+00	-4.23E-01	2.60E+00	2.81E+00	NA	NA	NA	3.36E+02	ND	ND	ND	ND	MW-62-37
	4	003			10/10/2007	14:50	3.02E+02	1.58E+02	1.47E-02	-1.67E-01	4.44E-01	6.10E-01	2.12E-01	1.81E+00	2.02E+00	-7.67E-01	1.74E+00	1.83E+00	NA	NA	NA						
	1	004			1/10/2008	13:55	3.97E+02	1.68E+02	1.71E-02	1.34E-01	6.05E-01	7.24E-01	8.35E-01	4.43E+00	4.62E+00	-2.10E-01	3.87E+00	4.19E+00	NA	NA	NA						
	3	006			8/6/2008	12:00	3.91E+02	1.19E+02	1.45E-02	2.23E-01	2.69E-01	4.54E-01	-2.55E-00	1.52E+00	2.06E+00	-1.68E+00	1.56E+00	2.38E+00	NA	NA	NA						
MW-62-53	2	001	53.1	-40.3	5/10/2007	15:00	3.93E+02	1.91E+02	1.72E-02	4.41E-01	7.97E-01	8.96E-01	6.50E-01	3.40E+00	3.86E+00	-9.12E-01	3.52E+00	3.74E+00	-5.00E+00	1.40E-01	1.68E+01	3.60E+02	ND	ND	ND	ND	MW-62-53
	3	002			7/26/2007	15:34	3.45E102	1.94E102	1.78E 02	3.56E-01	6.98E-01	7.85E-01	0.00E100	4.62E100	2.53E100	-8.44E-01	2.77E100	2.45E100	NA	NA	NA						
	1	003			1/10/2008	15:37	3.48E102	1.67E102	1.71E 02	4.45E-02	6.72E-01	8.15E-01	-7.91E-01	2.75E100	2.93E100	7.68E-01	2.88E100	3.43E100	NA	NA	NA						
	3	005			8/6/2008	12:35	3.52E102	1.54E102	2.41E 02	9.52E-03	2.54E-01	4.95E-01	1.38E100	2.24E100	3.98E100	3.02E-01	2.30E100	3.87E100	NA	NA	NA						
MW-62-71	3	002	71.1	-58.3	7/26/2007	12:20	1.51E+02	1.65E+02	1.74E-02	2.15E-01	7.26E-01	8.29E-01	1.11E+00	3.36E+00	3.91E+00	-2.39E-01	3.48E+00	3.90E+00	NA	NA	NA	3.62E+02	ND	ND	ND	ND	MW-62-71
	4	003			10/10/2007	12:23	2.69E+02	1.61E+02	1.55E-02	1.15E-01	5.22E-01	6.30E-01	1.18E+00	2.43E+00	2.45E+00	1.54E+00	2.10E+00	2.55E+00	NA	NA	NA						
	1	004			1/10/2008	14:04	3.53E+02	1.89E+02	1.94E-02	3.78E-01	5.85E-01	6.46E-01	-7.82E-01	2.51E+00	2.72E+00	3.78E-02	2.22E+00	2.55E+00	NA	NA	NA						
	3	006			8/6/2008	11:42	4.64E+02	1.66E+02	2.53E-02	3.31E-01	2.60E-01	3.94E-01	5.85E-01	2.01E+00	3.53E+00	-4.96E-01	2.23E+00	3.66E+00	NA	NA	NA						
MW-62-92	3	002	91.6	-78.8	7/26/2007	12:35	4.37E+02	2.07E+02	1.80E-02	-2.28E-02	3.39E-01	3.94E-01	6.50E-01	3.15E+00	3.63E+00	8.32E-01	3.38E+00	3.95E+00	NA	NA	NA	4.39E+02	ND	ND	ND	ND	MW-62-92
	4	003			10/10/2007	12:15	4.28E+02	1.73E+02	1.50E-02	-1.91E-01	4.77E-01	6.54E-01	6.23E-01	1.88E+00	2.01E+00	1.85E+00	1.80E+00	2.21E+00	NA	NA	NA						
	1	004			1/10/2008	11:09	3.94E+02	1.92E+02	1.94E-02	1.38E-01	6.59E-01	7.90E-01	3.75E-01	2.94E+00	3.39E+00	9.37E-01	3.47E+00	3.62E+00	NA	NA	NA						
	3	006			8/6/2008	11:49	4.95E+02	1.59E+02	2.38E-02	2.43E-01	3.29E-01	5.64E-01	1.51E+00	2.29E+00	4.11E+00	5.16E+00	2.59E+00	5.35E+00	NA	NA	NA						
MW-62-138	3	002	138.1	-125.3	7/26/2007	15:55	5.38E+02	2.19E+02	1.82E-02	5.26E-01	5.79E-01	6.09E-01	6.88E-02	3.51E+00	3.98E+00	6.39E-01	3.93E+00	4.54E+00	NA	NA	NA	6.55E+02	9.72E-01	ND	ND	ND	MW-62-138
	4	003			10/10/2007	14:46	7.78E+02	2.09E+02	1.54E-02	8.37E-01	8.30E-01	8.69E-01	0.00E+00	2.67E+00	2.90E+00	-1.19E+00	2.44E+00	2.50E+00	NA	NA	NA						
	1	004			1/10/2008	10:05	7.69E+02	1.82E+02	1.74E-02	7.34E-01	4.32E-01	3.52E-01	4.30E-01	3.36E+00	3.88E+00	1.05E-01	3.47E+00	3.91E+00	NA	NA	NA						
	3	006			8/6/2008	11:41	5.33E+02	1.55E+02	2.28E-02	1.21E+00	4.18E-01	5.01E-01	8.24E-01	2.44E+00	4.27E+00	3.85E-01	2.41E+00	4.20E+00	NA	NA	NA						
MW-62-182	3	002	182.1	-169.3	7/26/2007	16:20	4.17E+02	2.06E+02	1.82E-02	-9.56E-02	2.73E-01	3.26E-01	-1.16E-00	3.10E+00	3.25E+00	6.21E-01	2.70E+00	3.15E+00	NA	NA	NA	4.45E+02	ND	ND	ND	ND	MW-62-182
	4	003			10/10/2007	14:42	4.94E+02	1.83E+02	1.54E-02	-1.48E-01	4.40E-01	5.99E-01	6.04E-01	1.91E+00	1.91E+00	5.45E-01	1.92E+00	2.23E+00	NA	NA	NA						
	1	004			1/10/2008	11:15	4.70E+02	1.68E+02	1.71E-02	8.15E-02	5.13E-01	6.33E-01	-1.17E-01	2.96E+00	2.99E+00	9.22E-01	1.31E+00	2.33E+00	NA	NA	NA						
	3	006			8/6/2008	13:54	3.99E+02	1.52E+02	2.34E-02	5.30E-02	3.33E-01	6.16E-01	8.48E-01	2.19E+00	3.85E+00	-2.67E-01	2.40E+00	3.97E+00	NA	NA	NA						
MW-63-18	3	002	14.9	0.7	7/30/2007	13:10	2.00E+02	1.74E+02	1.89E-02	-2.18E-01	3.91E-01	4.68E-01	1.98E+00	2.65E+00	3.03E+00	-1.31E+00	2.50E+00	2.53E+00	NA	NA	NA	2.00E+02	3.29E+00	ND	ND	ND	MW-63-18
	4	003			10/11/2007	12:43	1.49E+02	1.56E+02	1.71E-02	3.08E-01	6.23E-01	7.12E-01	1.52E+00	2.63E+00	3.16E+00	-1.41E-01	2.52E+00	2.74E+00	NA	NA	NA						
	1	004			1/9/2008	14:55	1.23E+02	1.56E+02	1.73E-02	-6.34E-02	5.55E-01	7.38E-01	2.55E+00	3.29E+00	3.42E+00	1.97E+00	2.94E+00	3.75E+00	NA	NA	NA						
	3	006			7/30/2008	11:13	1.79E+02	1.20E+02	1.91E-02	3.29E+00	5.61E-01	4.68E-01	-1.71E-02	1.75E+00	2.97E+00	-1.16E+00	2.04E+00	2.49E+00	NA	NA	NA						
MW-63-34	3	002	31.5	-17.3	7/30/2007	13:28	2.80E+02	1.77E+02	1.90E-02	-1.64E-01	3.36E-01	4.03E-01	1.73E-01	3.66E+00	3.56E+00	3.98E-01	3.66E+00	4.21E+00	NA	NA	NA	3.20E+02	1.15E+00	ND	ND	ND	MW-63-34
	4	003			10/11/2007	12:50	2.31E+02	1.61E+02	1.74E-02	-2.75E-01	4.44E-01	6.73E-01	-6.24E-01	3.60E+00	3.58E+00	3.81E-01	2.65E+00	3.10E+00	NA	NA	NA						
	1	004			1/9/2008	14:20	3.26E+02	1.65E+02	1.71E-02	1.24E-01	5.57E-01	6.84E-01	1.83E+00	3.63E+00	4.44E+00	3.53E-01	3.90E+00	4.33E+00	NA	NA	NA						
	3	006			7/30/2008	11:12	4.41E102	1.39E102	1.91E 02	1.15E100	4.60E-01	6.45E-01	-1.48E-02	2.26E100	3.87E100	-7.91E-01	2.52E100	3.63E100	NA	NA	NA						
MW-63-50	3	002	49.5	-37.2	7/25/2007	14:00	2.23E102	1.80E102	1.95E 02	1.29E-01	6.03E-01	6.84E-01	2.08E100	3.18E100	3.90E100	-1.58E-01	3.19E100	3.54E100	NA	NA	NA	3.01E102	ND	ND	ND	ND	MW-63-50
	4	003			10/11/2007	11:10	2.89E+02	1.62E+02	1.73E-02	-3.41E-01	5.10E-01	7.67E-01	6.21E-01	2.98E+00	3.39E+00	1.56E+00	3.17E+00	3.86E+00	NA	NA	NA						
	1	004			1/9/2008	12:32	3.56E+02	1.67E+02	1.72E-02	4.48E-01	7.41E-01	8.26E-01	3.37E-01	2.66E+00	3.02E+00	-1.42E+00	3.14E+00	3.20E+00	NA	NA	NA						
	3	006			7/30/2008	10:29	3.33E+02	1.32E+02	1.91E-02	6.10E-01	4.97E-01	8.02E-01	-1.77E-00	1.83E+00	2.66E+00	-1.22E+00	1.91E+00	2.80E+00	NA	NA	NA						
MW-63-93	3	003	93.0	-80.7	7/25/2007	14:34	2.37E+02	1.82E+02	1.97E-02	-4.43E-01	4.41E-01	5.29E-01	1.24E+00	3.31E+00	3.90E+00	9.28E-03	3.75E+00	4.16E+00	NA	NA	NA	2.30E+02	1.62E+00	ND	ND	NA	MW-63-93
	4	004			10/11/2007	11:17	1.15E+02	1.55E+02	1.72E-02	8.19E-01	8.90E-01	9.47E-01	-6.95E-01	2.97E+00	3.16E+00	-1.77E+00	3.33E+00	3.23E+00	NA	NA	NA						
	1	005			1/9/2008	12:46	2.15E+02	1.59E+02	1.71E-02	1.86E-01	7.08E-01	8.45E-01	7.74E-01	3.06E+00	3.56E+00	1.05E-01	3.20E+00	3.58E+00	NA	NA	NA						
	3	007			7/29/2008	14:17	2.38E+02	1.25E+02	1.92E-02	1.62E+00	4.37E-01	4.73E-01	-4.02E-01	2.01E+00	3.36E+00	-3.19E-01	1.96E+00	3.23E+00	NA	NA	NA						
MW-63-112	3	002	111.5	-99.2	7/25/2007	14:52	2.69E+02	1.83E+02	1.97E-02	6.32E-02	3.46E-01	3.99E-01	6.92E-01	4.14E+00	4.19E+00	-6.35E-01	3.94E+00	4.34E+00	NA	NA	NA	3.06E+02	ND	ND	ND	ND	MW-63-112
	4	003			10/11/2007	13:45	2.78E+02	1.62E+02	1.72E-02	-7.94E-02	6.73E-01	8.71E-01	-3.04E-00	5.49E+00	4.52E+00	7.65E-01	3.50E+00	4.15E+00	NA	NA	NA						
	1	004			1/9/2008	10:20	4.69E+02	1.73E+02	1.72E-02	2.19E-01	5.07E-01	5.92E-01	3.90E-01	3.30E+00	3.34E+00	2.87E-01	3.56E+00	3.75E+00	NA	NA	NA						
	3	006			7/29/2008	14:20	2.07E+02	1.01E+02	1.63E-02	7.08E-01	5.39E-01	8.66E-01	6.61E-01	2.23E+00	3.89E+00	1.07E+00	2.46E+00	4.41E+00	NA	NA	NA						
MW-63-121	3	002	121.0	-108.7	7/25/2007	11:50	2.96E+02	1.82E+02	1.94E-02	3.19E-01	5.31E-01	5.93E-01	-1.31E-00	3.29E+00	3.46E+00	1.70E-01	3.46E+00	3.87E+00	NA	NA	NA	4.11E+02	8.56E-01	ND	ND	ND	MW-63-121
	4	003			10/11/2007	13:51	4.62E+02	1.70E+02	1.74E-02	2.39E-01	6.25E-01	7.37E-01	2.48E+00	4.51E+00	4.94E+00	1.54E+00	4.00E+00	4.54E+00	NA	NA	NA						
	1	004			1/9/2008	10:42	5.40E+02	1.74E+02	1.71E-02	2.06E-02	4.70E-01	6.09E-01	2.54E+00	3.38E+00	4.15E+00	1.09E+00	3.41E+00	4.02E+00	NA	NA	NA						
	3	006			7/29/2008	14:39	3.44E+02	1.04E+02	1.61E-02	8.56E-01	1.46E-01	2.05E-01	2.86E-01	2.08E+00	3.57E+00	1.23E+00	2.30E+00	4.11E+00	NA	NA	NA						

See Page 8 for Notes

IPEC00201768

TABLE 3
2007-2008 GROUNDWATER ANALYTICAL RESULTS
AND AVERAGES
INDIAN POINT ENGERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLING QUARTER[2]	SAMPLE ID	SAMPLE ZONE CENTER, Depth Ft Below Top of Casing[3]	SAMPLE ZONE CENTER, Elevation Ft msl[3]	SAMPLE COLLECTION		ANALYSIS RESULTS															YEARLY ROLLING AVERAGES[4]					Well ID
							TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			TRITIUM (pCi/L)	Sr-90 (pCi/L)	Cs-137 (pCi/L)	Co-60 (pCi/L)	Ni-63 (pCi/L)	
					Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Average	Average	Average	Average	Average	
MW-63-163	3	002	162.5	-150.2	7/25/2007	12:13	4.79E+02	1.91E+02	1.96E−02	-7.20E-01	3.46E-01	6.26E-01	-3.18E−00	5.16E+00	4.39E+00	-4.54E-01	3.75E+00	3.99E+00	NA	NA	NA	4.61E+02	8.02E-01	ND	ND	ND	MW-63-163
	4	003			10/11/2007	14:18	3.49E+02	1.65E+02	1.73E−02	7.93E-03	7.98E-01	9.60E-01	-4.46E-01	3.00E+00	3.28E+00	-1.91E-02	2.94E+00	3.30E+00	NA	NA	NA						
	1	004			1/9/2008	10:51	5.68E+02	1.77E+02	1.72E−02	3.19E-03	5.55E-01	7.17E-01	-4.52E-01	3.50E+00	3.89E+00	2.23E+00	6.11E+00	4.38E+00	NA	NA	NA						
	3	006			7/29/2008	14:56	4.48E+02	1.07E+02	1.63E−02	8.02E-01	3.27E-01	4.10E-01	-2.09E−00	2.34E+00	3.61E+00	9.03E-01	2.59E+00	4.48E+00	NA	NA	NA						
MW-63-174	3	002	174.0	-161.7	7/25/2007	12:00	5.28E+02	1.94E+02	1.97E−02	-2.78E-01	4.41E-01	6.59E-01	6.28E-01	3.98E+00	4.55E+00	-3.03E-01	3.45E+00	3.80E+00	NA	NA	NA	4.93E+02	2.79E+00	ND	ND	ND	MW-63-174
	4	003			10/11/2007	14:22	3.70E+02	1.65E+02	1.72E−02	-2.85E-01	7.14E-01	9.39E-01	1.94E+00	2.90E+00	2.70E+00	-8.59E-01	2.56E+00	2.71E+00	NA	NA	NA						
	1	004			1/9/2008	10:45	6.23E+02	1.79E+02	1.72E−02	6.16E-01	6.95E-01	7.24E-01	-1.24E−00	3.14E+00	3.33E+00	1.48E+00	3.03E+00	3.77E+00	NA	NA	NA						
	3	006			7/29/2008	14:40	4.49E+02	1.40E+02	1.92E−02	2.79E+00	4.82E-01	3.52E-01	-3.76E-01	2.23E+00	3.71E+00	-1.72E+00	2.65E+00	3.79E+00	NA	NA	NA						
MW-66-21	3	001	14.1	0	7/30/2007	13:45	3.57E+03	2.91E+02	1.96E−02	1.79E+00	7.08E-01	2.08E+03	1.77E-01	3.07E+00	3.51E+00	2.21E+00	3.27E+00	4.20E+00	NA	NA	NA	1.55E+03	1.47E+00	ND	ND	ND	MW-66-21
	4	002			10/15/2007	10:45	1.04E+03	2.24E+02	1.95E−02	2.42E+00	7.97E-01	5.30E-01	-8.32E-01	3.03E+00	2.74E+00	1.01E-01	2.79E+00	3.18E+00	1.48E+01	2.06E−01	2.28E+01						
	1	003			1/14/2008	11:33	8.18E+02	4.62E+02	4.16E−02	1.09E+00	8.96E-01	8.19E-01	1.68E+00	3.14E+00	3.77E+00	2.35E+00	3.86E+00	4.26E+00	-5.07E+00	2.12E−01	2.55E+01						
	3	005			7/29/2008	11:48	7.83E+02	1.02E+02	1.30E−02	9.03E-01	3.56E-01	4.39E-01	-1.01E−00	1.88E+00	2.92E+00	1.71E+00	2.17E+00	3.99E+00	-6.26E+00	1.66E−01	2.99E+01						
MW-66-36	3	001	33.6	-19.5	7/30/2007	12:49	9.10E+03	4.13E+02	1.94E−02	6.20E+00	1.19E+00	6.05E-01	-9.84E-01	2.67E+00	2.76E+00	-5.59E-01	2.90E+00	3.06E+00	NA	NA	NA	7.58E+03	1.11E+01	ND	ND	ND	MW-66-36
	4	002			10/15/2007	10:16	8.95E+03	4.61E+02	1.92E−02	1.12E+01	1.61E+00	5.63E-01	0.00E+00	8.34E+00	4.32E+00	-2.92E-01	4.34E+00	4.68E+00	1.17E+01	1.88E−01	2.09E+01						
	1	003			1/14/2008	11:40	7.26E+03	1.01E+03	4.16E−02	1.51E+01	2.40E+00	8.34E-01	2.34E+00	3.38E+00	4.14E+00	-1.08E+00	3.78E+00	3.39E+00	7.19E+00	2.36E−01	2.71E+01						
	3	005			7/29/2008	12:05	5.01E+03	1.91E+02	1.30E−02	1.20E+01	1.06E+00	6.20E-01	2.07E-01	1.66E+00	2.82E+00	-1.05E+00	1.93E+00	3.00E+00	-1.00E+00	1.69E−01	2.98E+01						
MW-67-39[13]	3	001	38.3	-25.8	8/31/2007	12:05	4.86E+03	4.34E+02	1.92E−02	1.86E+01	1.86E+00	4.73E-01	-1.93E-01	2.02E+00	2.24E+00	-9.45E-01	2.00E+00	2.09E+00	NA	NA	NA	4.49E+03	2.00E+01	1.02E+01	ND	ND	MW-67-39
	4	002			10/1/2007	11:30	5.07E103	3.75E102	1.95E 02	2.71E101	2.44E100	6.21E-01	1.02E101	4.11E100	1.98E100	3.69E-01	2.07E100	2.39E100	2.51E100	1.68E 01	1.93E101						
	1	004			2/25/2008	15:38	4.17E103	8.28E102	5.29E 02	2.05E101	1.77E100	6.97E-01	-1.15E 00	3.44E100	3.73E100	1.99E100	4.39E100	3.98E100	-5.41E-01	2.26E 01	2.63E101						
	3	005			7/28/2008	14:07	3.87E103	1.72E102	1.30E 02	1.37E101	1.11E100	3.97E-01	-1.03E 00	2.60E100	3.42E100	4.47E-01	2.15E100	3.68E100	6.34E100	1.67E 01	2.88E101						
MW-67-105	3	001	104.8	-92.3	8/31/2007	12:35	1.86E+03	5.16E+02	3.34E−02	1.11E+00	6.12E-01	5.26E-01	2.26E-01	2.00E+00	2.00E+00	-3.08E-01	1.68E+00	1.86E+00	NA	NA	NA	2.26E+03	1.07E+00	ND	ND	ND	MW-67-105
	4	002			10/1/2007	11:40	2.64E+03	2.96E+02	1.95E−02	4.12E-01	8.28E-01	9.46E-01	0.00E+00	6.11E+00	3.77E+00	-4.57E-01	3.63E+00	3.96E+00	1.05E+01	1.58E−01	1.76E+01						
	1	004			2/25/2008	13:44	2.38E+03	6.89E+02	5.30E−02	1.13E+00	7.89E-01	8.12E-01	-1.27E−00	3.25E+00	3.38E+00	-4.79E-02	2.97E+00	3.25E+00	1.24E+01	1.74E−01	1.93E+01						
	3	005			7/28/2008	14:25	2.16E+03	1.40E+02	1.37E−02	9.63E-01	3.54E-01	4.16E-01	4.17E-01	1.59E+00	2.78E+00	7.65E-01	1.51E+00	2.78E+00	7.25E+00	1.65E−01	2.85E+01						
MW-67-173	3	001	172.3	-159.8	8/31/2007	13:04	1.05E+03	4.28E+02	3.37E−02	3.73E-01	3.77E-01	4.12E-01	-1.46E−00	3.56E+00	3.68E+00	1.19E-02	3.75E+00	4.15E+00	NA	NA	NA	9.81E+02	ND	ND	ND	ND	MW-67-173
	4	002			10/1/2007	12:30	1.01E+03	2.25E+02	1.95E−02	1.48E-01	8.62E-01	1.07E+00	-1.34E−00	3.79E+00	4.01E+00	2.82E+00	3.25E+00	3.77E+00	4.12E+00	1.71E−01	1.96E+01						
	1	004			2/25/2008	14:00	9.51E+02	5.51E+02	5.30E−02	-4.12E-01	6.06E-01	7.76E-01	6.65E-01	2.82E+00	3.23E+00	-3.63E-01	2.54E+00	2.70E+00	-5.95E+00	2.37E−01	2.82E+01						
	3	005			7/28/2008	14:42	9.12E+02	1.09E+02	1.36E−02	1.05E-01	2.66E-01	4.85E-01	-1.22E−00	2.06E+00	3.19E+00	-3.63E-01	2.14E+00	3.49E+00	5.88E+00	1.64E−01	2.84E+01						
MW-67-219	3	001	218.8	-206.3	8/31/2007	13:43	1.25E+03	4.46E+02	3.30E−02	3.27E-02	3.00E-01	3.47E-01	-1.58E-01	3.04E+00	3.32E+00	9.02E-01	3.09E+00	3.68E+00	NA	NA	NA	1.15E+03	ND	ND	ND	ND	MW-67-219
	4	002			10/1/2007	12:53	9.46E+02	2.22E+02	1.95E−02	-2.27E-01	7.50E-01	1.03E+00	1.48E-01	2.60E+00	2.90E+00	1.38E-01	2.37E+00	2.65E+00	1.21E+01	2.64E−01	2.99E+01						
	1	004			2/25/2008	11:43	1.23E+03	5.81E+02	5.31E−02	-7.61E-02	4.93E-01	6.12E-01	-1.33E−00	3.03E+00	3.18E+00	1.08E+00	3.15E+00	3.78E+00	1.23E+01	1.81E−01	2.03E+01						
	3	005			7/28/2008	11:00	1.17E+03	1.16E+02	1.36E−02	-7.49E-02	2.34E-01	4.85E-01	-2.91E-01	1.98E+00	3.33E+00	-2.64E-01	1.92E+00	3.18E+00	5.99E+00	1.68E−01	2.90E+01						
MW-67-276	3	001	275.3	-262.8	8/31/2007	12:20	6.79E+02	3.83E+02	3.41E−02	-3.34E-01	3.57E-01	4.29E-01	1.36E+00	3.82E+00	4.02E+00	-9.09E-01	3.75E+00	4.00E+00	NA	NA	NA	1.00E+03	ND	ND	ND	ND	MW-67-276
	4	002			10/1/2007	13:04	1.11E+03	2.30E+02	1.96E−02	3.82E-02	8.36E-01	9.91E-01	-3.32E−00	3.63E+00	3.34E+00	-3.17E-01	3.51E+00	3.31E+00	5.04E-01	1.59E−01	1.84E+01						
	1	004			2/25/2008	11:48	1.07E+03	5.64E+02	5.29E−02	4.43E-01	7.06E-01	7.38E-01	2.00E+00	3.45E+00	4.21E+00	1.79E+00	4.11E+00	4.33E+00	1.08E+01	1.89E−01	2.11E+01						
	3	005			7/28/2008	11:09	1.16E+03	1.16E+02	1.36E−02	-5.05E-02	2.76E-01	5.47E-01	-8.94E-01	1.98E+00	3.18E+00	5.92E-01	1.97E+00	3.45E+00	7.55E+00	1.62E−01	2.77E+01						
MW-67-323	3	001	322.3	-309.8	8/31/2007	13:20	3.13E+02	1.55E+02	1.57E−02	-2.41E-01	3.06E-01	3.74E-01	1.14E+00	3.71E+00	4.33E+00	1.29E-01	3.76E+00	4.32E+00	NA	NA	NA	5.78E+02	ND	ND	ND	ND	MW-67-323
	4	002			10/1/2007	14:08	1.29E+03	2.40E+02	1.96E−02	5.67E-01	8.58E-01	9.37E-01	-5.77E-01	3.04E+00	3.24E+00	-6.19E-01	3.35E+00	3.58E+00	5.25E-01	1.65E−01	1.92E+01						
	1	004			2/25/2008	11:59	3.72E+02	2.75E+02	2.87E−02	3.61E-01	7.60E-01	8.62E-01	-2.08E-01	2.97E+00	3.32E+00	1.29E+00	3.50E+00	4.18E+00	6.85E+00	1.88E−01	2.13E+01						
	3	005			7/28/2008	11:25	3.38E+02	9.08E+01	1.36E−02	-2.38E-01	3.66E-01	7.29E-01	8.29E-01	2.30E+00	3.99E+00	2.24E-01	2.04E+00	3.46E+00	-5.98E+00	1.59E−01	2.86E+01						
MW-67-340	3	001	339.8	-327.3	8/31/2007	12:51	3.69E+02	1.61E+02	1.60E−02	1.69E-01	2.71E-01	3.04E-01	6.52E-01	4.61E+00	5.13E+00	1.53E+00	5.43E+00	5.20E+00	NA	NA	NA	1.37E+02	ND	ND	ND	ND	MW-67-340
	4	002			10/1/2007	14:00	3.90E+02	1.92E+02	1.96E−02	1.42E-01	3.71E-01	4.20E-01	7.29E-01	3.46E+00	3.96E+00	-1.22E+00	3.33E+00	3.50E+00	3.89E+00	1.54E−01	1.76E+01						
	1	004			2/25/2008	12:00	4.78E+02	2.82E+02	2.86E−02	-2.17E-01	5.53E-01	6.94E-01	-1.58E−00	3.99E+00	3.94E+00	-7.62E-01	3.19E+00	3.43E+00	5.72E+00	1.83E−01	2.09E+01						
	3	005			7/28/2008	11:18	5.11E102	9.36E101	1.30E 02	-3.39E-01	2.28E-01	5.49E-01	3.13E-01	2.21E100	3.81E100	9.03E-01	2.25E100	3.68E100	-6.94E100	1.57E 01	2.78E101						
MW-107	3	005	32.7	110.1	7/23/2007	14:18	8.92E101	1.52E102	1.70E 02	1.66E-01	5.19E-01	5.87E-01	8.13E-01	2.73E100	1.60E100	1.03E-01	1.41E100	1.60E100	NA	NA	NA	ND	ND	ND	ND	NA	MW-107
MW-111	2	024	16.5	2.4	6/15/2007	14:17	1.19E+05	3.69E+03	3.52E−02	9.74E-01	6.30E-01	5.76E-01	-7.53E-01	3.27E+00	3.00E+00	1.21E-01	2.79E+00	3.17E+00	6.34E+00	1.26E−01	1.43E+01	6.85E+04	1.50E+00	ND	ND	ND	MW-111
	3	025			8/3/2007	9:53	9.88E+04	2.93E+03	3.68E−02	9.74E-01	6.73E-01	6.27E-01	4.24E-01	2.75E+00	3.15E+00	3.95E-01	2.60E+00	3.02E+00	NA	NA	NA						
	1	026			1/28/2008	11:38	4.77E+04	1.77E+03	2.97E−02	2.56E+00	9.45E-01	6.18E-01	2.60E+00	4.05E+00	3.90E+00	-6.32E-01	2.55E+00	2.63E+00	1.33E+01	1.58E−01	1.73E+01						
U3-4D	1	015	45.6	-10.8	2/1/2008	12:40	3.75E+02	1.36E+02	1.35E−02	-1.78E-01	7.83E-01	9.77E-01	2.83E-01	2.69E+00	3.10E+00	1.41E+00	3.26E+00	3.97E+00	NA	NA	NA	4.21E+02	ND	ND	ND	ND	U3-4D
	3	017			7/28/2008	16:46	4.66E+02	2.50E+02	3.79E−02	-3.57E-01	4.96E-01	9.81E-01	2.89E-01	2.08E+00	3.62E+00	4.78E-01	2.36E+00	3.69E+00	NA	NA	NA						
U3-T1	3	017	5.7	2.8	8/1/2007	13:20	4.90E+02	3.38E+02	2.73E−02	5.21E-02	5.13E-01	6.47E-01	8.49E-01	3.57E+00	4.15E+00	2.88E-01	3.42E+00	3.92E+00	NA	NA	NA	5.76E+02	ND	ND	ND	ND	U3-T1
	4	018			10/22/2007	16:13	5.30E+02	4.01E+02	4.01E−02	3.41E-01	5.49E-01	6.09E-01	-1.08E−00	3.44E+00	3.64E+00	-1.34E+00	3.52E+00	3.68E+00	NA	NA	NA						
	1	019			1/22/2008	16:11	7.29E+02	3.27E+02	2.96E−02	6.43E-01	7.41E-01	7.79E-01	1.21E+00	3.14E+00	3.76E+00	2.38E-01	2.51E+00	2.75E+00	1.14E+01	1.65E−01	1.84E+01						
	3	021			7/23/2008	11:16	5.56E+02	2.58E+02	3.79E−02	6.40E-01	5.19E-01	8.37E-01	2.41E+00	2.24E+00	4.18E+00	6.54E-01	2.44E+00	4.01E+00	NA	NA	NA						
U3-T2	3	022	5.7	2.6	8/1/2007	14:14	1.25E+03	4.52E+02	2.55E−02	-4.84E-02	5.37E-01	7.11E-01	-1.75E−00	3.23E+00	3.20E+00	1.99E-02	3.54E+00	4.00E+00	NA	NA	NA	1.19E+03	7.16E-01	ND	ND	ND	U3-T2
	4	023			10/22/2007	15:07	1.17E+03	4.76E+02	4.02E−02	2.36E-01	5.28E-01	6.08E-01	-7.13E-02	2.82E+00	3.11E+00	2.53E+00	3.50E+02	3.81E+00	NA	NA	NA						
	1	024			1/22/2008	16:16	1.33E+03	3.83E+02	2.97E−02	4.31E-01	8.54E-01	9.63E-01	7.39E-01	2.97E+00	3.39E+00	-1.14E+00	3.39E+00	2.86E+00	2.78E+00	1.62E−01	1.89E+01						
	3	026			7/23/2008	13:40	9.97E+02	2.85E+02	3.64E−02	7.16E-01	3.31E-01	4.56E-01	3.57E-02	1.72E+00	2.93E+00	-1.02E+00	2.44E+00	3.39E+00										
U1-CSS	2	003	14.0	6.1	6/13/2007	11:39	1.53E+03	5.25E+02	4.35E−02	1.45E+01	1.91E+00	6.24E-01	8.50E-01	3.57E+00	4.15E+00	2.82E+00	4.28E+00	4.93E+00	4.42E+00	1.95E−01	2.22E+01	1.61E+03	1.63E+01	ND	ND	ND	U1-CSS
	3	004			8/6/2007	15:55	2.80E+03	2.81E+02	1.95E−02	2.68E+01	2.33E+00	5.71E-01	2.53E+00	4.30E+00	4.61E+00	2.48E+00	6.84E+00	4.17E+00	NA	NA	NA						
	1	005			1/15/2008	14:54	4.95E+02	2.04E+02	1.76E−02	7.73E+00	1.31E+00	6.91E-01	2.85E+00	6.56E+00	3.36E+00	-6.88E-02	3.33E+00	3.71E+00	NA	NA	NA						

IPEC00201769

TABLE 3
2007-2008 GROUNDWATER ANALYTICAL RESULTS
AND AVERAGES
INDIAN POINT ENGERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLING QUARTER[2]	SAMPLE ID	SAMPLE ZONE CENTER, Depth Ft Below Top of Casing[3]	SAMPLE ZONE CENTER, Elevation Ft msl[3]	SAMPLE COLLECTION		ANALYSIS RESULTS															YEARLY ROLLING AVERAGES[4]					Well ID
							TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			TRITIUM (pCi/L)	Sr-90 (pCi/L)	Cs-137 (pCi/L)	Co-60 (pCi/L)	Ni-63 (pCi/L)	
					Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Average	Average	Average	Average	Average	
LAF-002	2	006	NA	-22.3	6/7/2007	13:18	-6.85E+00	1.33E+02	1.54E-02	3.19E-01	6.02E-01	6.79E-01	7.80E-01	2.63E+00	3.04E+00	6.55E-01	2.60E+00	3.04E+00	NA	NA	NA	ND	ND	ND	ND	NA	LAF-002
	3	007			10/9/2007	9:35	7.46E+01	1.37E+02	1.55E-02	4.43E-01	4.98E-01	5.18E-01	-5.45E-01	2.10E+00	1.69E+00	-1.44E+00	1.78E+00	1.39E+00	NA	NA	NA						
	4	008			12/4/2007	10:50	9.00E+01	1.46E+02	1.62E-02	4.89E-01	6.20E-01	6.62E-01	-6.91E-01	4.59E+00	4.37E+00	-2.35E+00	3.72E+00	3.39E+00	NA	NA	NA						
MH-5[15]	2	001	NA	NA	6/29/2007	12:15	1.41E+03	2.33E+02	1.87E-02	-3.26E-01	6.21E-01	9.20E-01	-9.57E-01	3.40E+00	3.60E+00	6.39E-02	3.13E+00	3.49E+00	NA	NA	NA	1.21E+03	ND	ND	ND	NA	MH-5
	3	002			8/10/2007	15:15	1.17E+03	5.21E+02	4.56E-02	3.17E-02	7.84E-01	9.38E-01	-5.40E-01	3.17E+00	2.87E+00	-8.50E-01	2.84E+00	2.93E+00	NA	NA	NA						
	4	003			10/26/2007	13:30	1.62E+03	2.30E+02	1.84E-02	1.60E-01	6.06E-01	7.10E-01	2.15E-01	2.64E+00	2.95E+00	-6.20E-01	2.90E+00	3.06E+00	NA	NA	NA						
	1	004			1/16/2008	12:30	9.28E+02	2.45E+02	1.77E-02	4.62E-01	8.33E-01	9.37E-01	5.23E-01	2.78E+00	3.09E+00	5.97E-01	2.55E+00	2.90E+00	NA	NA	NA						
B-1[15]	2	001	NA	NA	6/29/2007	12:35	7.93E+02	2.07E+02	1.89E-02	-3.83E-01	6.75E-01	9.30E-01	0.00E+00	7.04E+00	4.44E+00	-9.13E-01	3.30E+00	3.40E+00	NA	NA	NA	8.05E+02	ND	1.68E+01	ND	NA	B-1
	3	002			8/14/2007	11:30	1.10E+03	2.25E+02	1.90E-02	1.29E-02	5.93E-01	7.38E-01	0.00E+00	6.71E+00	3.93E+00	9.94E-01	3.54E+00	4.16E+00	NA	NA	NA						
	4	003			10/22/2007	14:49	1.10E+03	4.68E+02	4.01E-02	-1.56E-01	3.72E-01	5.51E-01	1.68E+01	5.82E+00	3.82E+00	1.33E+00	3.23E+00	3.53E+00	NA	NA	NA						
	1	004			1/22/2008	13:08	2.27E+02	1.61E+02	1.71E-02	1.29E-01	5.00E-01	6.12E-01	3.13E-01	2.54E+00	2.83E+00	-9.46E-02	2.72E+00	3.01E+00	NA	NA	NA						
B-6[15]	2	001	NA	NA	7/5/2007	9:06	4.03E+02	1.67E+02	1.69E-02	1.01E-01	4.97E-01	5.67E-01	1.29E+00	3.46E+00	4.04E+00	1.09E+00	3.51E+00	4.13E+00	NA	NA	NA	4.31E+02	ND	ND	ND	NA	B-6
	3	002			8/14/2007	8:30	5.46E+01	1.68E+02	1.92E-02	-3.06E-01	6.20E-01	8.32E-01	5.63E-01	2.97E+00	3.42E+00	-2.88E+00	3.31E+00	2.35E+00	NA	NA	NA						
	4	003			10/22/2007	11:30	1.07E+02	1.70E+02	1.90E-02	-7.54E-02	4.34E-01	5.83E-01	2.30E+00	2.33E+00	3.04E+00	1.04E+00	2.46E+00	3.05E+00	NA	NA	NA						
	1	004			1/16/2008	16:50	4.72E+02	2.04E+02	1.79E-02	1.05E-01	7.05E-01	8.83E-01	3.96E+00	4.41E+00	3.32E+00	1.29E+00	3.15E+00	3.66E+00	NA	NA	NA						

Notes:

1. For nested multi-level monitoring wells, suffix of well ID indicates depth (rounded to nearest foot) from reference point on casing to bottom of well screen. For Waterloo multi-level systems, suffix indicates depth (rounded to nearest foot) from reference point on casing to top of sampling port. Well IDs without a suffix are open bedrock wellbores.
2. This sampling program began in May 2007, and thus, analytical results from only the last four quarterly samples collected from each location are provided. Monitoring locations are sampled quarterly, bi-annually, or annually. Due to laboratory error during analysis, no Quarter 2, 2008 data is available.
3. Sampling depths within sampling intervals (i.e. location of pump intake) have been located adjacent to a transmissive zone where possible.
4. Averages provided are analytical result averages of up to the last four quarterly samples collected from each monitoring location. Monitoring locations are sampled quarterly, bi-annually, or annually. Thus some averages provided may be the average of one, two, three, or four samples. For quarters in which samples were reanalyzed or confirmatory samples were taken, the highest result was used to calculate averages if subsequent results confirmed the validity of the original sample/analysis. For cases in which reanalysis or confirmatory sampling discredited the validity of the original sample result, the highest of the sample results deemed valid were used. If resampling discredited the validity of the original sample result of a particular radionuclide, the original sample results for that radionuclide and the other four radionuclide results were not used.
5. NA indicates that the constituent was not analyzed.
6. ND indicates that all of the analytical results used to calculate the average were less than MDC and/or 3 times the 1 sigma uncertainty.
7. MW-32 sampling intervals -62, -92, -140, -165, and -190, as shown in the 2007 2nd and 3rd quarter sample results, were part of the previous Waterloo System configuration in MW-32, prior to the new configuration installed on September 10, 2007. New configuration sampling intervals are indicated by footnote 8.
8. MW-32 currently contains a Waterloo Multilevel Sampling System configured with the sampling intervals -59, -85, -131, -149, -173, and -190. A previous installation of a Waterloo System within MW-32 (prior to the September 10, 2007 installation of the new configuration) was configured with different sampling intervals (indicated by footnote 7). New configuration sampling intervals listed in parenthesis are representatively equivalent to the old configuration sampling interval immediately preceding it. New configuration sampling intervals not listed in parenthesis have no representative equivalent within the old configuration.
9. Dot pattern denotes sampling interval is positioned within overburden. Open box indicates sampling interval is in bedrock.
10. Select wells such as MW-36-52 were analyzed more than once for the same radionuclide. In these circumstances, only the higher result is used to calculate averages.
11. Due to unexpectedly high levels of Cs-137 detected in the original set of the 1st Quarter 2008 samples collected from MW-50, a second set of samples were collected and analyzed. Quality control review of the original analysis showed no evidence of error in laboratory analysis or field collection procedures. However, historical data and data for the second set of samples showed results below MDC and below three times the 1 sigma uncertainty (not positive) for Cs-137 at this location, suggesting that the first set of results do not appropriately characterize activity at this location. Thus, results for the first set of MW50 samples during Quarter 1 were not used to calculate yearly averages.
12. Due to unexpectedly high levels of Cs-137 detected in the original set of the 4th Quarter 2007 samples collected from MW-51, a second set of samples were collected and analyzed. Quality control review of the original analysis showed no evidence of error in laboratory analysis or field collection procedures. However, historical data and the results of the second set of MW51 samples showed negative results for Cs-137 at this location, suggesting that the first set of results do not appropriately characterize activity at this location. Thus, results for the first set of MW51 samples during Quarter 4 were not used to calculate yearly averages.
13. Due to unexpectedly high levels of Cs-137 detected in the original set of the 1st Quarter 2008 samples collected from MW-67, a second set of samples were collected and analyzed. Quality control review of the original analysis showed no evidence of error in laboratory analysis or field collection procedures. However, historical data and data for the second set of samples showed results below MDC and below three times the 1 sigma uncertainty (not positive) for Cs-137 at this location, suggesting that the first set of results do not appropriately characterize activity at this location. Thus, results for the first set of MW67 samples during Quarter 1 were not used to calculate yearly averages.
14. At monitoring well U3T1, sample IDs 019-B, 019-D, and 019-S were collected for laboratory and field QAQC (B=Blind, D=Duplicate, S-Spike). The greater value of duplicates or samples was used to calculate rolling averages. Blind and Spikes were not included in these calculations.
15. These locations are storm drains.

Averages

IPEC00201770

TABLE 4
2008 3rd QUARTER
GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE COLLECTION		ANALYSIS RESULTS																				Well ID
		TRITIUM (pCi/L)						Sr-90 (pCi/L)				Cs-137 (pCi/L)				Co-60 (pCi/L)				Ni-63 (pCi/L)				
		Date	Time	Result	Std. Dev.	MDC	L.L.[3]	Result	Std. Dev.	MDC	L.L.	Result	Std. Dev.	MDC	L.L.	Result	Std. Dev.	MDC	L.L.	Result	Std. Dev.	MDC	L.L.	
MW-30-69	020	8/5/2008	11:22	1.99E+05	3.92E+03	4.95E+02	3.08E+05	2.09E-01	3.07E-01	5.34E-01	2.00E−00	-1.57E-01	1.42E+00	2.38E+00	positive	1.11E+00	1.28E+00	2.33E+00	positive	NA[4]	NA	NA	positive	MW-30-69
MW-30-84	020	8/5/2008	14:40	4.31E+03	2.28E+02	1.94E+02	1.09E+04	2.77E-01	2.86E-01	4.67E-01	1.19E−00	-1.87E-01	1.44E+00	2.35E+00	positive	-1.04E-01	2.12E+00	2.66E+00	positive	NA	NA	NA	positive	MW-30-84
MW-31-49	010	8/7/2008	12:43	5.94E+02	1.33E+02	1.92E+02	1.46E+04	2.39E-01	2.67E-01	4.43E-01	2.00E−00	7.07E-01	1.30E+00	2.23E+00	1.77E+02	7.08E-01	1.49E+00	2.56E+00	positive	NA	NA	NA	positive	MW-31-49
MW-31-63	010	8/7/2008	11:22	1.76E+04	4.17E+02	1.94E+02	5.96E+04	-2.12E-01	2.61E-01	5.89E-01	2.00E−00	-1.86E-01	1.28E+00	2.16E+00	positive	3.73E-01	1.43E+00	2.49E+00	positive	NA	NA	NA	positive	MW-31-63
MW-31-85	010	8/7/2008	11:13	2.30E+03	1.83E+02	1.94E+02	6.42E+03	1.07E-01	2.87E-01	5.30E-01	2.00E−00	-6.47E-01	1.22E+00	1.94E+00	positive	1.63E-02	1.31E+00	2.18E+00	positive	NA	NA	NA	positive	MW-31-85
MW-32-59	005	7/31/2008	13:23	1.54E+03	1.63E+02	1.94E+02	3.29E+04	1.72E-01	3.81E-01	6.90E-01	2.00E−00	4.66E-01	1.97E+00	3.33E+00	positive	-1.08E−00	2.48E+00	3.26E+00	positive	NA	NA	NA	positive	MW-32-59
MW-32-85	008	7/31/2008	14:35	7.48E+03	2.83E+02	1.93E+02	1.58E+04	1.16E-01	3.35E-01	6.24E-01	2.00E−00	2.14E-01	2.06E+00	3.50E+00	positive	1.07E+00	1.88E+00	3.43E+00	positive	NA	NA	NA	positive	MW-32-85
MW-32-149	007	7/31/2008	11:10	5.32E+02	1.31E+02	1.94E+02	2.66E+03	1.38E-02	3.46E-01	6.80E-01	2.00E−00	1.06E+00	1.65E+00	2.87E+00	positive	1.42E+00	1.56E+00	2.81E+00	positive	NA	NA	NA	positive	MW-32-149
MW-32-173	004	7/31/2008	10:52	1.08E+03	1.48E+02	1.92E+02	1.18E+04	6.80E-01	4.52E-01	7.11E-01	2.00E−00	-1.17E+00	1.58E+00	2.47E+00	positive	6.06E-01	1.65E+00	2.96E+00	positive	NA	NA	NA	positive	MW-32-173
MW-32-190	007	7/31/2008	11:24	4.71E+03	2.35E+02	1.94E+02	9.26E+03	3.21E-01	3.35E-01	5.51E-01	2.00E−00	-8.54E-01	1.55E+00	2.53E+00	positive	2.22E+00	1.77E+00	3.30E+00	positive	NA	NA	NA	positive	MW-32-190
MW-36-24	011	7/24/2008	13:57	**1.02E+03**	**1.22E+02**	**1.63E+02**	**5.72E+02**	3.38E-01	3.75E-01	6.21E-01	2.00E−00	3.97E-01	2.09E+00	3.61E+00	positive	-5.45E-01	2.37E+00	3.85E+00	positive	NA	NA	NA	positive	MW-36-24
MW-36-52	010	7/24/2008	16:00	1.26E+04	7.66E+02	3.74E+02	2.26E+04	4.19E−00	6.35E-01	5.57E-01	4.88E−00	-4.79E-01	2.24E+00	3.69E+00	positive	2.77E-02	2.11E+00	3.53E+00	positive	NA	NA	NA	positive	MW-36-52
	010	7/24/2008	16:00	NA	NA	NA	2.26E+04	**5.67E+00**	**7.42E-01**	**4.73E-01**	**4.88E−00**	NA	NA	NA	positive	NA	NA	NA	positive	NA	NA	NA	positive	MW-36-52
MW-37-22	011	7/24/2008	11:20	4.33E+03	2.28E+02	1.95E+02	6.07E+03	1.22E−01	1.25E−00	7.14E-01	3.74E−01	4.32E-01	2.13E+00	3.66E+00	positive	2.97E+00	2.57E+00	4.83E+00	positive	NA	NA	NA	positive	MW-37-22
MW-37-32	011	7/24/2008	12:28	5.16E+03	2.45E+02	1.95E+02	6.29E+03	2.06E−01	1.51E−00	8.63E-01	3.91E−01	-4.08E-01	1.58E+00	2.18E+00	positive	-1.46E-01	2.04E+00	2.58E+00	positive	NA	NA	NA	positive	MW-37-32
MW-37-40	011	7/24/2008	13:12	5.24E+03	2.43E+02	1.91E+02	1.19E+04	1.31E−00	4.41E-01	5.07E-01	1.36E−01	-1.10E+00	1.52E+00	2.48E+00	positive	-1.35E−00	2.11E+00	2.70E+00	positive	NA	NA	NA	positive	MW-37-40
MW-37-57	011	7/24/2008	13:20	5.33E+03	2.47E+02	1.94E+02	1.16E+04	2.12E−01	1.46E−00	5.27E-01	5.02E−01	-7.11E-01	1.88E+00	3.07E+00	positive	-1.17E−00	2.10E+00	3.24E+00	positive	NA	NA	NA	positive	MW-37-57
MW-40-27	004	8/11/2008	13:19	2.22E+02	1.06E+02	1.72E+02	1.00E+03	3.66E-01	4.20E-01	7.05E-01	2.00E−00	6.08E-01	2.28E+00	4.00E+00	positive	-3.72E-01	2.56E+00	3.83E+00	positive	-7.57E−00	1.15E+01	2.05E+01	positive	MW-40-27
MW-40-46	005	8/11/2008	13:35	1.68E+02	1.04E+02	1.71E+02	1.00E+03	-3.25E-01	3.77E-01	8.09E-01	2.00E−00	1.25E-01	1.99E+00	3.31E+00	positive	1.09E+00	2.05E+00	3.64E+00	positive	4.04E+00	1.17E+01	2.01E+01	positive	MW-40-46
MW-40-81	005	8/11/2008	9:43	2.42E+02	1.06E+02	1.71E+02	1.00E+03	1.68E-01	3.65E-01	6.52E-01	2.00E−00	-7.84E-02	1.69E+00	2.78E+00	positive	2.60E-01	1.92E+00	3.25E+00	positive	-2.96E−00	1.10E+01	1.92E+01	positive	MW-40-81
MW-40-100	007	8/11/2008	10:10	1.93E+02	1.05E+02	1.71E+02	1.00E+03	-3.44E-02	2.85E-01	5.83E-01	2.00E−00	-1.18E-01	1.59E+00	2.68E+00	positive	6.38E-01	1.52E+00	2.70E+00	positive	0.00E+00	1.09E+01	1.89E+01	positive	MW-40-100
MW-40-127	007	8/11/2008	10:34	1.68E+02	1.04E+02	1.70E+02	1.00E+03	1.65E-01	2.41E-01	4.19E-01	2.00E−00	1.24E-01	1.65E+00	2.81E+00	positive	7.30E-03	1.49E+00	2.51E+00	positive	-8.77E−00	1.13E+01	2.01E+01	positive	MW-40-127
MW-40-162	005	8/11/2008	11:44	2.30E+02	1.08E+02	1.75E+02	1.00E+03	7.70E-02	4.19E-01	7.81E-01	2.00E−00	6.25E-01	2.43E+00	4.16E+00	positive	3.15E+00	2.07E+00	4.11E+00	positive	-5.27E−00	1.22E+01	2.16E+01	positive	MW-40-162
MW-42-49	011	8/4/2008	14:24	3.16E+03	2.65E+02	1.91E+02	3.45E+03	3.56E−01	1.72E−00	5.59E-01	9.71E−01	1.06E+01	6.13E+02	1.20E+01	5.02E+01	-8.47E-03	2.69E+00	4.52E+00	3.18E+01	3.13E+02	2.60E+01	2.61E+01	1.77E+03	MW-42-49
MW-42-78	009	8/4/2008	12:07	6.18E+02	1.50E+02	1.91E+02	7.96E+02	3.91E-01	2.57E-01	3.76E-01	2.00E 00	2.71E+00	2.02E+00	3.75E+00	2.75E+02	-6.44E-01	2.10E+00	3.29E+00	positive	-7.57E-01	1.52E+01	2.68E+01	positive	MW-42-78
MW-44-66	009	7/25/2008	12:18	5.50E+02	2.55E+02	3.75E+02	7.99E+02	3.07E-01	3.66E-01	6.17E-01	2.00E−00	-2.33E+00	2.53E+00	3.03E+00	positive	-2.09E-01	1.74E+00	2.85E+00	positive	NA	NA	NA	positive	MW-44-66
MW-44-102	010	7/25/2008	12:18	4.37E+02	2.46E+02	3.75E+02	6.24E+02	-2.83E-02	1.83E-01	3.21E-01	2.00E−00	-4.07E-01	1.78E+00	2.88E+00	positive	1.35E+00	1.87E+00	3.41E+00	positive	NA	NA	NA	positive	MW-44-102
MW-45-42	013	7/25/2008	16:40	2.32E+03	3.77E+02	3.74E+02	3.80E+03	9.98E-01	3.24E-01	3.75E-01	2.00E−00	-1.77E+00	1.76E+00	2.53E+00	positive	1.09E+00	1.76E+00	3.19E+00	positive	NA	NA	NA	positive	MW-45-42
	013	7/25/2008	16:40	NA	NA	NA	3.80E+03	3.02E-01	2.75E-01	4.42E-01	2.00E−00	NA	NA	NA	positive	NA	NA	NA	positive	NA	NA	NA	positive	MW-45-42
MW-45-61	013	7/25/2008	13:51	1.80E+03	3.46E+02	3.76E+02	3.41E+03	2.36E-01	2.45E-01	4.05E-01	2.00E−00	-1.88E+00	1.91E+00	2.80E+00	positive	7.83E-01	1.91E+00	3.40E+00	positive	NA	NA	NA	positive	MW-45-61
MW-46	013	7/24/2008	16:56	7.71E+02	2.75E+02	3.77E+02	3.84E+03	2.71E-01	3.07E-01	5.10E-01	2.00E−00	6.05E-01	1.96E+00	3.38E+00	positive	-1.89E−00	2.10E+00	3.09E+00	positive	NA	NA	NA	positive	MW-46
MW-49-26	013	7/30/2008	15:03	3.96E+03	1.73E+02	1.30E+02	1.45E+04	1.62E 01	1.27E 00	8.36E-01	2.70E 01	-9.75E-01	1.74E+00	2.74E+00	positive	1.31E+00	2.17E+00	3.93E+00	positive	-2.81E 00	1.64E+01	2.92E+01	positive	MW-49-26
MW-49-42	013	7/30/2008	15:06	2.52E+03	1.45E+02	1.30E+02	8.74E+03	2.16E−01	1.41E−00	6.09E-01	4.64E−01	4.49E-01	1.59E+00	2.79E+00	positive	7.96E-01	1.70E+00	3.09E+00	positive	-2.73E−00	1.59E+01	2.84E+01	positive	MW-49-42
MW-49-65	013	7/30/2008	13:58	1.56E+03	1.23E+02	1.30E+02	5.03E+03	1.78E−01	1.29E−00	5.51E-01	3.66E−01	-4.77E-01	2.20E+00	3.63E+00	positive	8.42E-02	2.02E+00	3.39E+00	positive	-6.53E−00	1.67E+01	2.96E+01	positive	MW-49-65
MW-50-42	014	7/31/2008	15:43	3.73E+02	1.34E+02	1.91E+02	4.30E+02	9.28E−00	8.66E-01	4.39E-01	3.70E−01	-9.40E-01	1.99E+00	3.20E+00	positive	9.53E-01	1.91E+00	3.44E+00	positive	1.58E+01	1.76E+01	2.96E+01	positive	MW-50-42
MW-50-66	016	7/31/2008	17:02	2.71E+03	2.48E+02	1.91E+02	8.37E+03	3.30E−01	1.59E−00	4.02E-01	7.18E−01	2.31E+00	1.82E+00	3.43E+00	positive	6.64E-01	1.46E+00	2.68E+00	positive	3.58E+00	1.40E+01	2.43E+01	positive	MW-50-66
MW-51-40	008	8/8/2008	14:40	3.29E+02	1.60E+02	2.03E+02	1.00E+03	3.74E-01	4.02E-01	6.70E-01	2.00E−00	1.59E+00	2.19E+00	3.98E+00	positive	-1.99E-01	1.79E+00	2.99E+00	positive	-8.33E−00	1.02E+01	1.83E+01	positive	MW-51-40
MW-51-79	008	8/8/2008	12:55	1.61E+02	1.31E+02	2.01E+02	1.00E+03	2.03E-01	2.99E-01	5.18E-01	2.00E−00	9.63E-01	2.17E+00	3.82E+00	positive	5.64E-01	2.30E+00	3.98E+00	positive	-1.07E−01	1.07E+01	1.93E+01	positive	MW-51-79
MW-51-104	006	8/8/2008	10:50	2.82E+02	1.55E+02	2.08E+02	1.00E+03	-2.66E-01	4.00E-01	7.92E-01	2.00E−00	1.56E+00	2.03E+00	3.60E+00	positive	-1.21E-01	2.07E+00	3.38E+00	positive	-4.19E−00	1.34E+01	2.36E+01	positive	MW-51-104
MW-51-135	006	8/8/2008	11:50	2.09E+02	1.39E+02	1.99E+02	1.00E+03	5.09E-02	2.40E-01	4.57E-01	2.00E−00	-1.03E+00	2.08E+00	3.29E+00	positive	1.01E-02	2.01E+00	3.34E+00	positive	-6.78E−00	1.14E+01	2.02E+01	positive	MW-51-135
MW-51-163	006	8/8/2008	11:16	6.92E+01	8.27E+01	1.40E+02	1.00E+03	-1.22E-01	2.63E-01	5.44E-01	2.00E−00	-1.54E+00	2.25E+00	3.56E+00	positive	3.78E-01	1.97E+00	3.39E+00	positive	4.33E+00	1.26E+01	2.15E+01	positive	MW-51-163
MW-51-189	006	8/8/2008	11:17	1.10E+02	8.97E+01	1.43E+02	1.00E+03	-1.43E-01	3.38E-01	6.60E-01	2.00E−00	-2.27E+00	2.13E+00	3.12E+00	positive	-1.79E−00	2.70E+00	3.57E+00	positive	-5.89E−00	1.15E+01	2.04E+01	positive	MW-51-189
MW-53-82	008	8/4/2008	12:25	1.21E+03	1.84E+02	1.91E+02	7.04E+03	6.95E-01	3.04E-01	3.94E-01	7.96E−00	2.79E+00	2.26E+00	4.16E+00	positive	2.55E-02	2.14E+00	3.58E+00	positive	1.15E+01	1.24E+01	2.09E+01	positive	MW-53-82
MW-53-120	009	8/4/2008	10:15	5.80E+03	3.46E+02	1.91E+02	1.67E+04	3.03E−01	1.52E−00	3.11E-01	7.39E−01	-9.74E-01	1.93E+00	3.02E+00	1.59E+01	-1.15E-01	2.33E+00	3.20E+00	positive	2.65E+01	1.30E+01	2.11E+01	3.46E+01	MW-53-120
MW-54-37	006	7/22/2008	17:00	9.50E+02	1.08E+02	1.31E+02	1.82E+03	6.20E 00	7.50E-01	4.63E-01	1.60E 01	1.34E+00	2.22E+00	3.94E+00	positive	-4.43E-01	2.09E+00	3.34E+00	positive	1.42E+00	1.68E+01	2.95E+01	positive	MW-54-37
MW-54-58	006	7/22/2008	17:05	5.78E+02	9.64E+01	1.31E+02	1.34E+03	1.71E−00	5.24E-01	6.47E-01	3.98E−00	3.78E-01	2.07E+00	3.59E+00	positive	-1.41E-01	2.67E+00	4.23E+00	positive	1.37E+01	1.69E+01	2.85E+01	positive	MW-54-58
MW-54-123	006	7/22/2008	15:30	6.12E+02	9.77E+01	1.32E+02	1.85E+03	6.52E−00	8.15E-01	5.56E-01	3.13E−01	-2.82E-01	2.22E+00	3.72E+00	8.42E+00	-2.93E−00	2.52E+00	3.55E+00	positive	4.33E+00	1.57E+01	2.73E+01	positive	MW-54-123
MW-54-144	006	7/22/2008	15:35	1.13E+03	1.13E+02	1.31E+02	3.18E+03	1.69E−01	1.23E−00	5.01E-01	3.41E−01	1.57E+00	1.91E+00	3.48E+00	positive	-4.98E-01	2.43E+00	3.49E+00	positive	1.11E+01	1.69E+01	2.87E+01	positive	MW-54-144
MW-54-173	006	7/22/2008	15:51	2.05E+03	1.35E+02	1.30E+02	3.93E+03	1.29E−01	1.08E−00	5.25E-01	3.35E−01	-6.92E-02	2.07E+00	3.52E+00	positive	-1.62E−00	2.11E+00	3.15E+00	positive	7.86E+00	1.59E+01	2.72E+01	positive	MW-54-173

IPEC00201771

See Page 2 for Notes

TABLE 4
2008 3rd QUARTER
GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE COLLECTION		ANALYSIS RESULTS																				Well ID
		TRITIUM (pCi/L)						Sr-90 (pCi/L)				Cs-137 (pCi/L)				Co-60 (pCi/L)				Ni-63 (pCi/L)				
		Date	Time	Result	Std. Dev.	MDC	I.L.[3]	Result	Std. Dev.	MDC	I.L.	Result	Std. Dev.	MDC	I.L.	Result	Std. Dev.	MDC	I.L.	Result	Std. Dev.	MDC	I.L.	
MW-54-190	006	7/22/2008	15:50	1.25E+03	1.15E+02	1.30E+02	4.17E+03	2.13E−01	1.37E−00	5.69E-01	3.86E−01	8.45E-01	1.98E+00	3.41E+00	positive	-1.64E−00	2.06E+00	3.02E+00	positive	-8.42E−00	1.61E+01	2.92E+01	positive	MW-54-190
MW-55-24	007	8/1/2008	13:15	1.40E+03	1.93E+02	1.91E+02	5.33E+03	2.22E−01	1.36E−00	5.73E-01	5.23E−01	-7.37E-03	2.19E+00	3.69E+00	positive	2.85E+00	2.34E+00	4.16E+00	positive	6.11E+00	1.24E+01	2.11E+01	positive	MW-55-24
MW-55-35	007	8/1/2008	10:47	1.73E+03	2.08E+02	1.91E+02	7.91E+03	2.54E−01	1.42E−00	4.28E-01	6.54E−01	3.51E-01	2.17E+00	3.74E+00	positive	2.59E-01	2.33E+00	3.99E+00	positive	1.26E+01	1.23E+01	2.05E+01	positive	MW-55-35
MW-55-54	007	8/1/2008	10:38	6.31E+03	3.59E+02	1.91E+02	2.04E+04	2.32E−01	1.30E−00	3.56E-01	4.61E−01	6.53E-01	2.07E+00	3.52E+00	positive	1.29E+00	1.79E+00	3.30E+00	positive	1.82E+01	1.26E+01	2.08E+01	positive	MW-55-54
MW-60-35	006	7/30/2008	16:10	1.95E+02	1.21E+02	1.91E+02	2.00E+03	2.85E-01	3.50E-01	5.92E-01	2.00E−00	1.81E+00	1.93E+00	3.50E+00	positive	-1.19E−00	2.07E+00	3.20E+00	positive	NA	NA	NA	positive	MW-60-35
MW-60-53	006	7/30/2008	13:23	1.28E+02	9.80E+01	1.63E+02	2.00E+03	6.53E-01	5.33E-01	8.58E-01	2.00E−00	-1.68E-01	2.09E+00	3.43E+00	positive	1.05E+00	2.04E+00	3.65E+00	positive	NA	NA	NA	positive	MW-60-53
MW-60-72	006	7/30/2008	13:25	8.27E+01	9.69E+01	1.63E+02	2.00E+03	5.64E-01	3.01E-01	4.27E-01	2.00E−00	-8.79E-01	2.39E+00	3.91E+00	positive	-1.11E−00	2.47E+00	3.96E+00	positive	NA	NA	NA	positive	MW-60-72
	006	7/30/2008	13:25	NA	NA	NA	2.00E+03	1.73E-01	1.41E-01	2.33E-01	2.00E−00	NA	NA	NA	positive	NA	NA	NA	positive	NA	NA	NA	positive	MW-60-72
MW-60-135	006	7/30/2008	13:33	4.91E+02	1.42E+02	1.91E+02	2.00E+03	1.70E-01	3.44E-01	6.18E-01	2.00E−00	-4.68E-01	1.79E+00	2.88E+00	positive	1.43E+00	2.00E+00	3.61E+00	positive	NA	NA	NA	positive	MW-60-135
MW-60-154	006	7/30/2008	13:35	5.16E+02	1.44E+02	1.91E+02	2.00E+03	5.10E-01	2.52E-01	3.27E-01	2.00E−00	-8.80E-01	2.67E+00	3.58E+00	positive	4.30E-01	1.89E+00	3.25E+00	positive	NA	NA	NA	positive	MW-60-154
	006	7/30/2008	13:35	NA	NA	NA	2.00E+03	9.06E-03	1.64E-01	2.87E-01	2.00E−00	NA	NA	NA	positive	NA	NA	NA	positive	NA	NA	NA	positive	MW-60-154
MW-60-176	006	7/30/2008	14:08	8.95E+02	1.67E+02	1.91E+02	2.00E+03	-2.08E-02	2.96E-01	5.88E-01	2.00E−00	-3.15E-01	2.12E+00	3.44E+00	positive	-2.05E-01	2.03E+00	3.34E+00	positive	NA	NA	NA	positive	MW-60-176
MW-62-18	006	8/6/2008	12:55	2.69E+02	1.41E+02	2.25E+02	2.00E+03	5.31E-01	3.30E-01	4.89E-01	2.00E 00	9.69E-02	1.67E+00	2.82E+00	positive	-1.26E-01	1.99E+00	3.33E+00	positive	NA	NA	NA	positive	MW-62-18
MW-62-37	006	8/6/2008	12:00	3.94E+02	1.19E+02	1.45E+02	2.00E+03	2.23E-01	2.69E-01	4.54E-01	2.00E−00	-2.55E+00	1.52E+00	2.06E+00	positive	-1.08E−00	1.56E+00	2.38E+00	positive	NA	NA	NA	positive	MW-62-37
MW-62-53	005	8/6/2008	12:35	3.52E+02	1.54E+02	2.41E+02	2.00E+03	9.52E-03	2.54E-01	4.95E-01	2.00E−00	1.38E+00	2.24E+00	3.98E+00	positive	3.02E-01	2.30E+00	3.87E+00	positive	NA	NA	NA	positive	MW-62-53
MW-62-71	006	8/6/2008	11:42	4.64E+02	1.66E+02	2.53E+02	2.00E+03	3.31E-01	2.60E-01	3.94E-01	2.00E−00	5.85E-01	2.01E+00	3.53E+00	positive	-4.96E-01	2.23E+00	3.66E+00	positive	NA	NA	NA	positive	MW-62-71
MW-62-92	006	8/6/2008	11:49	4.95E+02	1.59E+02	2.38E+02	2.00E+03	2.43E-01	3.29E-01	5.64E-01	2.00E−00	1.51E+00	2.29E+00	4.11E+00	positive	5.16E+00	2.59E+00	5.35E+00	positive	NA	NA	NA	positive	MW-62-92
MW-62-138	006	8/6/2008	11:41	5.33E+02	1.55E+02	2.28E+02	2.00E+03	1.21E−00	4.18E-01	5.01E-01	2.00E−00	8.24E-01	2.44E+00	4.27E+00	positive	3.85E-01	2.41E+00	4.20E+00	positive	NA	NA	NA	positive	MW-62-138
MW-62-182	006	8/6/2008	13:54	3.99E+02	1.52E+02	2.34E+02	2.00E+03	5.30E-02	3.33E-01	6.16E-01	2.00E−00	8.48E-01	2.19E+00	3.85E+00	positive	-2.67E-01	2.40E+00	3.97E+00	positive	NA	NA	NA	positive	MW-62-182
MW-63-18	006	7/30/2008	11:13	1.79E+02	1.20E+02	1.91E+02	2.00E+03	**3.29E+00**	**5.61E-01**	**4.68E-01**	**2.00E−00**	-1.71E-02	1.75E+00	2.97E+00	positive	-1.16E−00	2.04E+00	2.49E+00	positive	NA	NA	NA	positive	MW-63-18
	006	7/30/2008	11:13	NA	NA	NA	2.00E+03	1.07E-01	2.06E-01	3.51E-01	2.00E−00	NA	NA	NA	positive	NA	NA	NA	positive	NA	NA	NA	positive	MW-63-18
MW-63-34	006	7/30/2008	11:12	4.41E+02	1.39E+02	1.91E+02	2.00E+03	1.15E−00	4.69E-01	6.45E-01	2.00E−00	-1.48E-02	2.26E+00	3.87E+00	positive	-7.91E-01	2.52E+00	3.65E+00	positive	NA	NA	NA	positive	MW-63-34
	006	7/30/2008	11:12	NA	NA	NA	2.00E+03	-2.54E-02	1.58E-01	2.82E-01	2.00E−00	NA	NA	NA	positive	NA	NA	NA	positive	NA	NA	NA	positive	MW-63-34
MW-63-50	006	7/30/2008	10:29	3.35E+02	1.32E+02	1.91E+02	2.00E+03	6.10E-01	4.97E-01	8.02E-01	2.00E−00	-1.77E+00	1.83E+00	2.66E+00	positive	-1.22E−00	1.91E+00	2.80E+00	positive	NA	NA	NA	positive	MW-63-50
MW-63-93	007	7/29/2008	14:17	2.38E+02	1.25E+02	1.92E+02	2.00E+03	1.62E−00	4.37E-01	4.73E-01	2.00E−00	-4.02E-01	2.01E+00	3.36E+00	positive	-3.19E-01	1.96E+00	3.23E+00	positive	NA	NA	NA	positive	MW-63-93
	007	7/29/2008	14:17	NA	NA	NA	2.00E+03	2.28E-03	2.21E-01	3.86E-01	2.00E−00	NA	NA	NA	positive	NA	NA	NA	positive	NA	NA	NA	positive	MW-63-93
MW-63-112	006	7/29/2008	14:20	2.07E+02	1.01E+02	1.63E+02	2.00E+03	7.08E-01	5.39E-01	8.66E-01	2.00E−00	6.61E-01	2.23E+00	3.89E+00	positive	1.07E+00	2.46E+00	4.41E+00	positive	NA	NA	NA	positive	MW-63-112
MW-63-121	006	7/29/2008	14:30	3.44E+02	1.04E+02	1.61E+02	2.00E+03	8.56E-01	1.46E-01	2.05E-01	2.00E−00	2.86E-01	2.08E+00	3.57E+00	positive	1.23E+00	2.30E+00	4.11E+00	positive	NA	NA	NA	positive	MW-63-121
	006	7/29/2008	14:30	NA	NA	NA	2.00E+03	6.63E-01	3.83E-01	5.73E-01	2.00E−00	NA	NA	NA	positive	NA	NA	NA	positive	NA	NA	NA	positive	MW-63-121
MW-63-163	006	7/29/2008	14:56	4.48E+02	1.07E+02	1.63E+02	2.00E+03	8.02E-01	3.27E-01	4.10E-01	2.00E−00	-2.09E+00	2.34E+00	3.61E+00	positive	9.03E-01	2.59E+00	4.48E+00	positive	NA	NA	NA	positive	MW-63-163
	006	7/29/2008	14:56	NA	NA	NA	2.00E+03	-8.79E-02	2.50E-01	4.37E-01	2.00E−00	NA	NA	NA	positive	NA	NA	NA	positive	NA	NA	NA	positive	MW-63-163
MW-63-174	006	7/29/2008	14:40	4.49E+02	1.40E+02	1.92E+02	2.00E+03	**2.79E+00**	**4.82E 01**	**3.52E 01**	**2.00E−00**	-3.76E-01	2.23E+00	3.71E+00	positive	-1.72E−00	2.65E+00	3.79E+00	positive	NA	NA	NA	positive	MW-63-174
	006	7/29/2008	14:40	NA	NA	NA	2.00E+03	6.56E-02	2.76E-01	4.80E-01	2.00E 00	NA	NA	NA	positive	NA	NA	NA	positive	NA	NA	NA	positive	MW-63-174
MW-66-21	005	7/29/2008	11:48	7.83E+02	1.02E+02	1.30E+02	4.61E+03	9.07E-01	3.56E-01	4.39E-01	4.84E−00	-1.01E+00	1.88E+00	2.92E+00	positive	1.71E+00	2.17E+00	3.99E+00	positive	-6.26E−00	1.66E+01	2.99E+01	positive	MW-66-21
MW-66-36	005	7/29/2008	12:05	5.01E+03	1.91E+02	1.30E+02	1.81E+04	1.20E−01	1.06E−00	6.20E-01	1.74E−01	2.07E-01	1.66E+00	2.82E+00	positive	-1.05E−00	1.93E+00	3.00E+00	positive	-1.00E−00	1.69E+01	2.98E+01	positive	MW-66-36
MW-67-39	005	7/28/2008	14:07	3.87E+03	1.72E+02	1.30E+02	9.93E+03	1.37E−01	1.11E−00	3.97E-01	4.57E−01	-1.03E+00	2.60E+00	3.42E+00	2.04E+01	4.47E-01	2.15E+00	3.68E+00	positive	6.34E+00	1.67E+01	2.88E+01	positive	MW-67-39
MW-67-105	005	7/28/2008	14:25	2.16E+03	1.40E+02	1.37E+02	4.50E+03	9.63E-01	3.54E-01	4.16E-01	2.22E−00	4.17E-01	1.59E+00	2.78E+00	positive	7.65E-01	1.51E+00	2.78E+00	positive	7.25E+00	1.65E+01	2.85E+01	positive	MW-67-105
MW-67-173	005	7/28/2008	14:42	9.12E+02	1.09E+02	1.36E+02	2.06E+03	1.05E-01	2.66E-01	4.85E-01	2.00E−00	-1.22E+00	2.06E+00	3.19E+00	positive	-3.63E-01	2.14E+00	3.49E+00	positive	5.88E+00	1.64E+01	2.84E+01	positive	MW-67-173
MW-67-219	005	7/28/2008	11:00	1.17E+03	1.16E+02	1.36E+02	2.20E+03	-7.49E-02	2.34E-01	4.85E-01	2.00E−00	-2.91E-01	1.98E+00	3.33E+00	positive	-2.61E-01	1.92E+00	3.18E+00	positive	5.99E+00	1.68E+01	2.90E+01	positive	MW-67-219
MW-67-276	005	7/28/2008	11:09	1.16E+03	1.16E+02	1.36E+02	1.79E+03	-5.05E-02	2.76E-01	5.47E-01	2.00E 00	-8.94E-01	1.98E+00	3.18E+00	positive	5.92E-01	1.97E+00	3.45E+00	positive	7.55E+00	1.62E+01	2.77E+01	positive	MW-67-276
MW-67-323	005	7/28/2008	11:25	3.38E+02	9.08E+01	1.36E+02	1.60E+03	-2.38E-01	3.66E-01	7.29E-01	2.00E−00	8.29E-01	2.30E+00	3.99E+00	positive	2.24E-01	2.04E+00	3.46E+00	positive	-5.98E−00	1.59E+01	2.86E+01	positive	MW-67-323
MW-67-340	005	7/28/2008	11:18	5.11E+02	9.36E+01	1.30E+02	7.59E+02	-3.39E-01	2.28E-01	5.49E-01	2.00E−00	3.13E-01	2.21E+00	3.81E+00	positive	9.03E-01	2.25E+00	3.68E+00	positive	-6.94E−00	1.57E+01	2.78E+01	positive	MW-67-340
U3-4D	017	7/28/2008	16:46	4.66E+02	2.50E+02	3.79E+02	NA	-3.57E-01	4.96E-01	9.81E-01	NA	2.89E-01	2.08E+00	3.62E+00	NA	4.78E-01	2.36E+00	3.69E+00	NA	NA	NA	NA	NA	U3-4D
U3-T1	021	7/23/2008	11:16	5.56E+02	2.58E+02	3.79E+02	1.02E+03	6.40E-01	5.19E-01	8.37E-01	2.00E−00	2.41E+00	2.24E+00	4.18E+00	positive	6.54E-01	2.44E+00	4.01E+00	positive	NA	NA	NA	positive	U3-T1
U3-T2	026	7/23/2008	13:40	9.97E+02	2.85E+02	3.64E+02	2.58E+03	7.16E-01	3.31E-01	4.56E-01	2.00E−00	3.57E-02	1.72E+00	2.93E+00	positive	-1.02E−00	2.44E+00	3.39E+00	positive	NA	NA	NA	positive	U3-T2
	026	7/23/2008	13:40	NA	NA	NA	2.58E+03	5.90E-01	5.19E-01	8.44E-01	2.00E−00	NA	NA	NA	positive	NA	NA	NA	positive	NA	NA	NA	positive	U3-T2

Notes:

1. For nested multi-level monitoring wells, suffix of well ID indicates depth (rounded to nearest foot) from reference point on casing to bottom of well screen. For Waterloo multi-level systems, suffix indicates depth (rounded to nearest foot) from reference point on casing to top of sampling port. Well IDs without a suffix are open bedrock wellbores.
2. Sampling depths within sampling intervals (location of pump intake) have been established at location of most transmissive zone to the extent possible.
3. I.L.s (Investigation Levels) are predetermined detection limits assigned to each sampling location which, if reached or exceeded, require further investigation or action. I.L.s presented here are established for 2008 based on 2007 averages. Positive detections indicate that the the result is greater than MDC and greater than or equal to 3 times the 1 sigma uncertainty.
4. NA indicates that the constituent was not analyzed.
6. Dot pattern denotes sampling interval is positioned within overburden soils. Open box indicates sampling interval is in bedrock.
9. These locations are storm drains, not monitoring wells.

IPEC00201772

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS															Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-30-69	001	69.3	6.4	1/30/2006	15:40	2.37E105	2.76E104	6.26E102	NA[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	MW-30-69
	003			6/23/2006	10:50	3.92E+05	3.35E+04	6.02E+03	3.34E-02	8.24E-01	1.09E+00	2.96E+01	1.40E+01	1.14E+01	4.23E+00	9.93E+00	1.14E+01	1.02E+01	1.27E+01	1.36E+01	
	004			8/18/2006	14:45	2.20E+05	4.20E+03	1.10E+03	8.14E-01	1.40E+00	1.52E+00	-7.33E+00	1.40E+01	1.41E+01	3.91E+00	1.51E+01	1.78E+01	NA	NA	NA	
	005			11/29/2006	10:45	1.06E+05	1.86E+03	5.30E+02	2.50E+00	8.40E-01	8.10E-01	3.13E+03	3.30E+01	5.00E+00	1.20E+00	2.28E+00	2.50E+00	1.15E+01	1.26E+01	1.40E+01	
	006			1/16/2007	14:05	8.17E+04	8.73E+03	6.34E+02	-1.60E-01	1.47E+00	1.60E+00	0.00E+00	2.10E+00	2.40E+00	-4.30E-01	2.07E+00	2.50E+00	7.07E+00	1.94E+01	2.20E+01	
	007			6/12/2007	10:20	2.97E+05	8.73E+03	6.34E+02	-2.63E-01	4.19E-01	6.45E-01	3.93E-01	3.75E+00	4.09E+00	6.88E-02	4.08E+00	3.94E+00	NA	NA	NA	
	008			7/18/2007	9:55	8.21E+04	2.46E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	009			7/25/2007	11:26	2.17E105	6.51E103	6.40E102	1.00E-01	6.16E-01	4.13E-01	-1.13E100	4.32E100	3.95E100	4.61E-01	2.81E100	3.28E100	NA	NA	NA	
	009			7/25/2007	11:26	2.32E+05	6.83E+03	5.81E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	010			8/1/2007	11:44	1.03E+05	3.09E+03	6.40E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	011			8/8/2007	10:00	9.96E+04	2.99E+03	6.32E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	012			8/15/2007	11:00	2.33E+05	6.99E+03	6.33E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	013			8/21/2007	9:45	1.07E+05	3.21E+03	7.05E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	014			8/30/2007	11:32	9.80E+04	2.94E+03	7.03E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	015			9/19/2007	11:00	9.20E104	2.76E103	7.02E102	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	016			10/23/2007	11:48	1.32E+05	3.90E+03	4.24E+02	2.52E-01	6.16E-01	7.12E-01	2.42E+00	5.76E+00	4.45E+00	-5.09E-01	3.66E+00	3.86E+00	NA	NA	NA	
	017			2/4/2008	13:00	1.87E+05	5.51E+03	3.95E+02	1.57E-01	6.98E-01	8.57E-01	1.26E+00	3.05E+00	3.56E+00	-6.00E-01	3.63E+00	3.28E+00	NA	NA	NA	
	019			6/6/2008	11:01	7.36E+04	2.02E+03	5.06E+02	2.02E-01	3.20E-01	5.59E-01	-9.82E-01	2.10E+00	3.27E+00	4.91E-01	2.24E+00	3.85E+00	NA	NA	NA	
	020			8/5/2008	11:22	1.99E+05	3.92E+03	4.95E+02	2.09E-01	3.07E-01	5.34E-01	-1.57E-01	1.42E+00	2.38E+00	1.11E+00	1.28E+00	2.33E+00	NA	NA	NA	
	021			9/3/2008	11:29	8.53E+04	2.03E+03	5.50E+02	-3.12E-01	5.12E-01	9.72E-01	-1.89E+00	2.22E+00	3.36E+00	NA	NA	NA	NA	NA	NA	
MW-30-84	001	83.8	-8.1	8/22/2006	13:15	1.25E+04	2.43E+03	1.61E+03	-1.60E-01	9.82E-01	1.13E+00	1.88E+00	1.09E+01	1.24E+01	-2.52E+00	1.00E+01	1.03E+01	NA	NA	NA	MW-30-84
	002			11/29/2006	14:30	1.01E104	1.59E103	1.10E103	-9.40E-01	7.80E-01	8.70E-01	2.94E102	1.68E101	5.00E100	-3.00E-01	3.90E100	4.80E100	4.10E100	1.17E101	1.30E101	
	003			1/17/2007	9:45	7.33E+03	7.50E+02	5.30E+02	4.80E-01	1.50E+00	1.60E+00	1.18E+00	2.61E+00	2.90E+00	0.00E+00	2.91E+00	3.40E+00	NA	NA	NA	
	004			6/12/2007	10:19	7.79E+03	9.47E+02	4.42E+02	-1.49E-01	4.44E-01	6.41E-01	-1.06E+00	2.29E+00	2.41E+00	-6.93E-01	2.38E+00	2.54E+00	-3.57E+00	1.74E+01	2.03E+01	
	005			7/18/2007	10:25	4.80E+03	7.20E+02	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	006			7/25/2007	13:00	5.02E+03	4.49E+02	2.43E+02	1.56E-01	3.09E-01	3.48E-01	2.83E+00	3.38E+00	2.84E+00	2.03E+00	2.91E+00	3.57E+00	NA	NA	NA	
	007			10/23/2007	12:49	4.27E+03	7.38E+02	4.03E+02	5.95E-01	5.53E-01	5.59E-01	1.56E+00	2.81E+00	3.38E+00	-1.17E+00	3.72E+00	3.27E+00	NA	NA	NA	
	008			2/4/2008	14:16	4.34E+03	2.61E+02	1.32E+02	-4.08E-01	4.55E-01	7.47E-01	-1.00E+00	2.55E+00	2.73E+00	-4.32E-01	2.97E+00	2.79E+00	NA	NA	NA	
	010			6/6/2008	12:10	3.85E103	5.33E102	5.04E102	1.54E-01	2.46E-01	4.34E-01	-8.97E-01	2.16E100	3.57E100	2.05E100	2.31E100	4.22E100	NA	NA	NA	
	020			8/5/2008	14:40	4.31E+03	2.28E+02	1.94E+02	2.77E-01	2.86E-01	4.67E-01	-1.87E-01	1.44E+00	2.35E+00	-1.04E-01	2.12E+00	2.66E+00	NA	NA	NA	
	021			9/3/2008	11:59	3.78E+03	5.13E+02	5.35E+02	-4.62E-02	4.61E-01	9.06E-01	-3.02E-01	1.73E+00	2.89E+02	NA	NA	NA	NA	NA	NA	
MW-31-49	001	48.8	26.8	11/27/2006	11:45	2.98E+02	1.74E+02	1.70E+02	0.00E+00	1.29E+00	1.40E+00	NA	NA	NA	1.30E+00	3.60E+00	4.00E+00	1.42E+02	1.65E+02	1.80E+02	MW-31-49
	002			1/18/2007	9:13	1.20E+03	5.70E+02	5.30E+02	3.00E-01	1.62E+00	1.80E+00	NA	NA	NA	-2.10E+00	8.10E+00	9.50E+00	NA	NA	NA	
	003			6/12/2007	14:24	1.48E+03	5.24E+02	4.37E+02	-1.51E-01	5.49E-01	7.52E-01	1.83E-01	2.12E+00	2.35E+00	1.26E-01	2.01E+00	2.26E+00	0.00E+00	1.11E+01	1.29E+01	
	004			8/2/2007	10:23	1.19E+04	1.27E+03	5.43E+02	-5.17E-01	7.89E-01	9.55E-01	8.83E+01	1.35E+01	3.31E+00	1.80E-01	3.63E+00	4.11E+00	NA	NA	NA	
	005			9/11/2007	13:10	6.98E103	3.27E102	1.59E102	-2.26E-01	4.23E-01	6.01E-01	-1.20E100	3.04E100	3.24E100	0.00E100	4.96E100	4.75E100	NA	NA	NA	
	006			10/24/2007	15:50	8.77E+03	9.99E+02	4.00E+02	5.14E-02	4.26E-01	5.36E-01	-6.76E-01	3.94E+00	3.57E+00	1.35E+00	3.21E+00	3.52E+00	NA	NA	NA	
	007			1/16/2008	10:31	3.97E+02	1.94E+02	1.77E+02	-9.14E-02	6.86E-01	8.97E-01	-1.17E+00	4.74E+00	5.07E+00	-9.76E-01	4.41E+00	4.65E+00	NA	NA	NA	
	009			6/6/2008	15:05	2.75E+04	1.25E+03	5.03E+02	2.83E-01	3.39E-01	5.72E-01	1.11E+00	1.93E+00	3.47E+00	1.72E+00	2.01E+00	3.82E+00	NA	NA	NA	
	009			6/6/2008	15:05	3.04E+04	1.34E+03	4.69E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	010			8/7/2008	12:43	5.94E+02	1.33E+02	1.92E+02	2.39E-01	2.67E-01	4.43E-01	7.07E-01	1.30E+00	2.23E+00	7.08E-01	1.49E+00	2.56E+00	NA	NA	NA	
	011			8/30/2008	11:55	1.36E+04	8.61E+02	5.53E+02	4.16E-01	4.80E-01	8.06E-01	1.27E+00	3.63E+00	3.09E+00	NA	NA	NA	NA	NA	NA	
MW-31-63	001	63.3	12.3	11/27/2006	12:10	6.89E+03	1.44E+03	1.10E+03	5.30E-01	1.26E+00	1.40E+00	1.99E+02	9.60E+00	3.60E+00	6.80E-01	2.94E+00	3.40E+00	4.10E+01	1.17E+02	1.30E+02	MW-31-63
	002			1/18/2007	9:25	1.41E+04	9.00E+02	5.20E+02	-6.50E-01	1.50E+00	1.70E+00	-4.00E-01	3.00E+00	3.50E+00	-4.50E-01	2.91E+00	3.50E+00	NA	NA	NA	
	003			6/12/2007	14:20	5.00E+03	7.85E+02	4.38E+02	4.72E-01	6.36E-01	6.78E-01	-5.01E-01	1.92E+00	2.09E+00	-8.78E-02	1.97E+00	2.20E+00	3.37E+00	1.89E+01	2.17E+01	
	004			8/2/2007	11:15	4.06E+04	2.27E+03	5.53E+02	-1.41E-01	7.84E-01	9.53E-01	1.20E+00	3.56E+00	4.18E+00	-3.09E-02	4.41E+00	4.23E+00	NA	NA	NA	
	005			9/11/2007	13:25	3.77E+04	1.13E+03	2.20E+02	-1.37E-01	4.52E-01	6.15E-01	-4.39E-01	3.51E+00	3.80E+00	-8.64E-01	3.92E+00	3.44E+00	NA	NA	NA	
	006			10/24/2007	14:55	3.58E+04	1.94E+03	4.00E+02	-1.63E-01	4.58E-01	6.34E-01	1.07E+00	5.31E+00	4.01E+00	1.01E+00	3.40E+00	4.11E+00	NA	NA	NA	

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS														Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-31-63	007			1/16/2008	11:32	1.24E+04	7.35E+02	1.80E+02	-6.88E-02	5.34E-01	7.44E-01	-2.49E-01	4.04E+00	4.40E+00	-9.08E-01	4.19E+00	4.32E+00	NA	NA	NA	MW-31-63
	009			6/6/2008	16:16	1.02E+04	7.92E+02	5.04E+02	1.44E-01	3.40E-01	6.17E-01	-1.15E+00	2.11E+00	3.36E+00	2.47E+00	2.31E+00	4.45E+00	NA	NA	NA	
	010			8/7/2008	11:22	1.76E+04	4.17E+02	1.94E+02	-2.12E-01	2.61E-01	5.89E-01	-1.86E-01	1.28E+00	2.16E+00	3.73E-01	1.43E+00	2.49E+00	NA	NA	NA	
	011			8/30/2008	12:34	2.21E+04	1.07E+03	5.49E+02	-6.34E-01	4.35E-01	9.79E-01	3.76E-01	2.35E+00	4.04E+00	NA	NA	NA	NA	NA	NA	
MW-31-85	001	84.8	-9.2	11/27/2006	12:20	4.62E+02	1.74E+02	1.70E+02	1.50E-01	1.44E+00	1.60E+00	1.52E+02	8.40E+00	3.20E+00	2.10E-01	2.19E+00	2.50E+00	2.20E+01	9.30E+01	1.00E+02	MW-31-85
	002			1/18/2007	9:16	2.66E+03	6.00E+02	5.20E+02	-5.90E-01	1.59E+00	1.80E+00	-4.90E+00	8.70E+00	1.00E+01	-6.00E-01	8.70E+00	1.00E+01	8.35E+00	2.11E+01	2.39E+01	
	003			6/12/2007	14:05	3.17E+02	1.62E+02	1.69E+02	-3.83E-01	6.62E-01	9.31E-01	3.95E-01	2.76E+00	1.91E+00	-5.71E-01	1.69E+00	1.83E+00	NA	NA	NA	
	004			8/2/2007	10:58	2.69E+03	7.11E+02	5.31E+02	-7.29E-01	6.31E-01	9.31E-01	-5.01E-02	3.29E+00	3.59E+00	-1.90E+00	3.35E+00	3.31E+00	NA	NA	NA	
	005			9/11/2007	13:20	4.32E+03	3.32E+02	1.82E+02	6.86E-01	7.48E-01	7.93E-01	-7.04E-01	3.04E+00	3.26E+00	-3.07E+00	3.68E+00	3.24E+00	NA	NA	NA	
	006			10/24/2007	14:40	5.51E+03	8.15E+02	3.98E+02	2.53E-01	4.08E-01	4.51E-01	5.68E-01	2.90E+00	3.38E+00	4.76E-01	2.75E+00	3.19E+00	NA	NA	NA	
	007			1/16/2008	11:26	1.31E+03	2.81E+02	1.84E+02	6.97E-01	7.67E-01	7.79E-01	2.68E+00	4.05E+00	4.83E+00	1.90E+00	3.80E+00	4.62E+00	NA	NA	NA	
	009			6/6/2008	15:26	5.95E+03	6.30E+02	5.05E+02	1.52E-01	3.17E-01	5.69E-01	-8.07E-01	2.20E+00	3.45E+00	1.91E+00	2.45E+00	4.58E+00	NA	NA	NA	
	010			8/7/2008	11:13	2.30E+03	1.83E+02	1.94E+02	1.07E-01	2.87E-01	5.30E-01	-6.47E-01	1.22E+00	1.94E+00	1.63E-02	1.31E+00	2.18E+00	NA	NA	NA	
	011			8/30/2008	12:08	8.34E+03	7.00E+02	5.52E+02	4.46E-01	4.87E-01	8.10E-01	-5.50E-01	1.86E+00	3.07E+00	NA	NA	NA	NA	NA	NA	
MW-32-62[5]	001	60.0	17.1	1/19/2007	9:30	7.67E+03	7.50E+02	5.20E+02	6.30E-01	1.47E+00	1.60E+00	-8.60E-01	1.98E+00	2.30E+00	4.90E-01	2.28E+00	2.60E+00	NA	NA	NA	MW-32-62[5]
	002			6/28/2007	14:25	2.40E+04	7.37E+02	1.97E+02	-1.65E-01	5.90E-01	7.97E-01	-1.74E+00	3.51E+00	3.30E+00	-1.42E+00	3.87E+00	3.34E+00	NA	NA	NA	
	003			8/13/2007	13:07	1.42E104	6.00E102	1.99E102	-2.71E-01	5.58E-01	7.58E-01	1.48E100	2.10E100	3.22E100	-4.66E-01	3.30E100	3.65E100	NA	NA	NA	
(MW-32-59)[4]	001	58.8	18.3	10/26/2007	12:07	1.11E+04	4.61E+02	1.84E+02	3.22E-01	6.43E-01	7.36E-01	-1.94E-01	3.82E+00	3.87E+00	2.45E+00	3.06E+00	4.08E+00	NA	NA	NA	(MW-32-59)[4]
	002			1/18/2008	13:25	1.87E+04	9.11E+02	1.86E+02	4.67E-01	6.96E-01	7.57E-01	9.98E-01	4.25E+00	4.79E+00	1.99E+00	3.81E+00	4.65E+00	NA	NA	NA	
	004			6/9/2008	12:10	2.85E+03	4.81E+02	5.06E+02	-3.39E-01	3.64E-01	7.61E-01	-1.22E+00	1.94E+00	2.98E+00	-7.10E-01	2.43E+00	3.91E+00	NA	NA	NA	
	005			7/31/2008	13:23	1.54E103	1.63E102	1.94E102	1.72E-01	3.81E-01	6.90E-01	4.66E-01	1.97E100	3.33E100	-1.08E100	2.48E100	3.26E100	NA	NA	NA	
	006			9/2/2008	13:52	2.44E+03	4.59E+02	5.53E+02	2.19E-01	5.54E-01	9.94E-01	7.77E-01	1.85E+00	3.21E+00	NA	NA	NA	NA	NA	NA	
MW-32-92[5]	001	90.5	-13.4	1/19/2007	9:40	1.12E+04	8.40E+02	5.30E+02	3.20E-01	1.47E+00	1.60E+00	1.57E+00	2.82E+00	3.10E+00	9.00E-01	4.20E+00	4.80E+00	NA	NA	NA	MW-32-92[5]
	002			6/28/2007	15:05	5.42E+03	3.77E+02	1.95E+02	-4.15E-01	5.10E-01	6.75E-01	-1.70E-01	2.77E+00	3.03E+00	-3.05E-01	3.19E+00	3.21E+00	NA	NA	NA	
	003			8/13/2007	10:48	5.70E+03	4.05E+02	2.01E+02	-2.45E-02	4.47E-01	5.75E-01	3.28E-01	2.81E+00	3.15E+00	9.90E-01	2.98E+00	3.53E+00	NA	NA	NA	
(MW-32-85)[4]	004	85.3	85.3	10/26/2007	11:12	1.26E+04	4.79E+02	1.79E+02	-1.17E-01	4.27E-01	6.25E-01	8.85E-01	2.97E+00	3.45E+00	-1.85E-02	3.23E+00	3.63E+00	NA	NA	NA	(MW-32-85)[4]
	005			1/18/2008	14:50	1.07E+04	6.90E+02	1.83E+02	-3.03E-01	4.38E-01	7.35E-01	3.57E-01	2.64E+00	2.67E+00	-5.37E-01	1.97E+00	2.13E+00	NA	NA	NA	
				6/9/2008	12:25	1.11E+04	8.21E+02	5.04E+02	-9.56E-02	3.57E-01	7.12E-01	1.39E+00	2.01E+00	3.68E+00	-5.47E-01	2.04E+00	3.34E+00	NA	NA	NA	
	008			7/31/2008	14:35	7.48E+03	2.83E+02	1.93E+02	1.16E-01	3.35E-01	6.24E-01	2.14E-01	2.06E+00	3.50E+00	1.07E+00	1.88E+00	3.43E+00	NA	NA	NA	
	009			9/2/2008	14:40	8.05E+03	6.90E+02	5.52E+02	1.42E-01	4.15E-01	7.65E-01	-1.37E+00	2.45E+00	3.52E+00	NA	NA	NA	NA	NA	NA	
MW-32-140[5]	001	138.0	-60.9	1/19/2007	9:45	1.13E+04	8.40E+02	5.30E+02	-1.03E+00	1.47E+00	1.70E+00	-6.00E-02	2.04E+00	2.30E+00	3.00E-02	2.07E+00	2.40E+00	NA	NA	NA	MW-32-140[5]
	002			6/28/2007	12:45	3.02E+02	1.88E+02	1.97E+02	-1.39E-01	5.13E-01	5.94E-01	-1.46E+00	5.09E+00	4.92E+00	9.88E-01	3.76E+00	4.38E+00	NA	NA	NA	
	003			8/13/2007	11:15	1.29E+02	1.70E+02	1.87E+02	2.69E-01	7.33E-01	8.51E-01	-8.09E-01	4.86E+00	4.85E+00	-1.19E+00	3.29E+00	3.22E+00	NA	NA	NA	
(MW-32-131)[4]	004	130.8	-53.7	10/26/2007	10:11	3.74E+02	2.39E+02	2.42E+02	2.47E-01	6.03E-01	7.06E-01	-1.81E-01	3.48E+00	3.82E+00	-2.55E-01	3.92E+00	3.99E+00	NA	NA	NA	(MW-32-131)[4]
	005			1/18/2008	11:23	5.04E+02	2.07E+02	1.79E+02	5.14E-01	7.79E-01	8.52E-01	8.47E-01	2.19E+00	2.21E+00	-8.40E-02	1.98E+00	2.18E+00	NA	NA	NA	
MW-32-165[5]	001	163.0	-85.9	1/19/2007	9:50	1.05E+04	8.70E+02	5.70E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	MW-32-165[5]
	002			6/28/2007	13:06	5.81E+02	2.03E+02	1.97E+02	-2.82E-01	7.33E-01	9.70E-01	8.54E-01	2.85E+00	2.94E+00	-8.16E-01	2.46E+00	2.60E+00	NA	NA	NA	
	003			8/13/2007	11:35	4.93E+02	2.09E+02	2.08E+02	-6.38E-01	3.81E-01	6.52E-01	-1.42E+00	3.76E+00	3.37E+00	1.63E+00	1.69E+00	2.91E+00	NA	NA	NA	
(MW-32-149)[4]	004	149.3	-72.2	10/26/2007	10:10	2.92E+03	2.94E+02	1.90E+02	-2.45E-01	4.89E-01	7.22E-01	1.99E-01	3.10E+00	3.51E+00	1.65E-01	3.56E+00	3.99E+00	NA	NA	NA	(MW-32-149)[4]
	005			1/18/2008	11:18	1.15E+03	2.69E+02	1.85E+02	3.04E-01	8.25E-01	9.53E-01	2.94E+00	4.29E+00	3.08E+00	-8.74E-01	2.82E+00	2.93E+00	NA	NA	NA	
	007			7/31/2008	11:10	5.32E+02	1.31E+02	1.94E+02	1.38E-02	3.46E-01	6.80E-01	1.06E+00	1.65E+00	2.87E+00	1.42E+00	1.56E+00	2.81E+00	NA	NA	NA	
MW-32-173[4]	001	172.8	-95.7	10/26/2007	9:55	5.89E+03	3.87E+02	1.92E+02	1.86E-02	5.87E-01	7.54E-01	6.92E-01	3.00E+00	3.51E+00	-9.97E-01	2.91E+00	3.02E+00	NA	NA	NA	MW-32-173[4]
	002			1/18/2008	11:05	3.40E+03	4.07E+02	1.82E+02	1.13E-01	6.02E-01	7.63E-01	-3.84E-01	2.00E+00	2.18E+00	-6.14E-01	2.09E+00	2.25E+00	NA	NA	NA	
	004			7/31/2008	10:52	1.08E+03	1.48E+02	1.92E+02	6.80E-01	4.52E-01	7.11E-01	-1.17E+00	1.58E+00	2.47E+00	6.06E-01	1.65E+00	2.96E+00	NA	NA	NA	
	005			9/2/2008	11:30	9.72E+02	3.72E+02	5.48E+02	1.85E-01	4.64E-01	8.41E-01	-1.02E+00	2.67E+00	3.88E+00	NA	NA	NA	NA	NA	NA	
MW-32-197[5]	001	194.5	-117.4	1/19/2007	9:55	1.13E+04	8.40E+02	5.20E+02	4.20E-01	1.50E+00	1.70E+00	2.60E-01	1.26E+00	1.40E+00	7.10E-01	1.50E+00	1.70E+00	NA	NA	NA	MW-32-197[5]

IPEC00201774

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS															Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-32-197[5]	002			6/28/2007	13:07	2.41E+03	2.72E+02	1.87E+02	-5.09E-02	6.12E-01	8.20E-01	1.52E+00	3.07E+00	3.64E+00	-1.29E+00	3.27E+00	3.37E+00	NA	NA	NA	MW-32-197[5]
	003			8/13/2007	11:25	1.72E+03	2.67E+02	2.03E+02	-3.65E-01	8.12E-01	1.04E+00	6.21E-01	2.49E+00	2.93E+00	-1.19E+00	2.38E+00	2.39E+00	NA	NA	NA	
(MW-32-190)[4]	004	190.3	-113.7	10/26/2007	9:53	9.76E+03	4.80E+02	1.93E+02	-5.05E-01	7.75E-01	9.73E-01	-6.17E-01	3.07E+00	3.27E+00	-1.94E-01	3.18E+00	3.57E+00	NA	NA	NA	(MW-32-190)[4]
	005			1/18/2008	11:35	8.89E+03	6.32E+02	1.83E+02	4.28E-01	7.73E-01	8.69E-01	6.57E-01	1.71E+00	2.02E+00	5.18E-01	1.65E+00	1.96E+00	NA	NA	NA	
	007			7/31/2008	11:24	4.71E+03	2.35E+02	1.94E+02	3.21E-01	3.35E-01	5.51E-01	-8.54E-01	1.55E+00	2.53E+00	2.22E+00	1.77E+00	3.30E+00	NA	NA	NA	
	008			9/2/2008	11:40	3.81E+03	5.20E+02	5.44E+02	5.92E-01	5.81E-01	9.53E-01	1.39E+00	2.82E+00	4.63E+00	NA	NA	NA	NA	NA	NA	
MW-33	001	19.2	-0.4	12/15/2005	8:00	1.42E105	4.26E103	7.00E102	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	MW-33
	002			12/19/2005	11:38	1.99E+05	5.97E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	003			12/29/2005	11:30	2.20E+05	6.60E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	004			1/6/2006	12:30	1.89E+05	5.67E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	005			1/13/2006	12:10	2.32E+05	6.96E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	006			1/20/2006	10:40	2.26E+05	6.78E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	007			1/27/2006	11:10	2.42E+05	7.26E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	008			2/3/2006	12:15	2.50E105	2.84E104	6.33E102	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	009			2/7/2006	16:00	2.14E+05	2.64E+04	6.37E+02	1.36E-01	5.05E-01	6.25E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	010			2/16/2006	13:55	2.61E+05	2.91E+04	6.36E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	011			3/3/2006	10:20	2.53E+05	7.59E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	012			4/7/2006	10:25	2.21E+05	6.63E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	014			5/17/2006	12:50	1.35E+05	2.01E+04	1.60E+03	7.79E-01	1.43E+00	1.47E+00	1.17E+01	1.19E+01	1.37E+01	4.62E+00	1.41E+01	1.28E+01	NA	NA	NA	
	015			6/7/2006	10:15	1.41E+05	1.85E+04	1.32E+03	6.74E-01	5.63E-01	6.44E-01	6.95E-01	8.72E+00	9.58E+00	-6.11E+00	8.63E+00	8.02E+00	NA	NA	NA	
	017			7/3/2006	9:50	2.64E105	2.01E104	3.85E103	4.78E-01	1.37E100	1.57E100	-6.85E-01	1.17E101	1.27E101	-5.24E100	1.28E101	1.21E101	NA	NA	NA	
	018			8/4/2006	8:15	1.84E+05	2.54E+04	1.87E+03	NA	NA	NA	3.53E+00	6.31E+00	7.84E+00	-1.14E+00	7.35E+00	8.60E+00	NA	NA	NA	
	019			8/30/2006	13:00	1.15E+05	1.77E+04	4.39E+03	NA	NA	NA	-6.99E-01	8.47E+00	8.90E+00	3.71E+00	7.21E+00	9.60E+00	NA	NA	NA	
	020	16	2.8	6/15/2007	15:48	9.06E+04	3.26E+03	3.61E+02	-2.82E-01	2.86E-01	4.85E-01	-2.78E-01	3.82E+00	3.76E+00	-1.64E+00	3.44E+00	3.39E+00	-8.12E-01	1.16E+01	1.37E+01	
	021			8/3/2007	10:20	2.30E+04	7.08E+02	2.04E+02	5.80E-01	8.49E-01	9.33E-01	8.18E-01	2.37E+00	2.83E+00	2.45E-01	2.13E+00	2.46E+00	NA	NA	NA	
	022			4/28/2008	15:00	5.85E+04	1.16E+03	2.58E+02	1.69E-01	2.97E-01	5.22E-01	1.08E-01	1.87E+00	3.12E+00	NA	NA	NA	NA	NA	NA	
	023			9/4/2008	14:41	6.80E+04	1.82E+03	5.47E+02	1.33E-01	4.05E-01	7.55E-01	5.46E-01	1.61E+00	2.83E+00	NA	NA	NA	NA	NA	NA	
MW-34	001	18.9	-0.4	12/13/2005	13:53	6.39E104	1.92E103	7.00E102	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	MW-34
	002			12/19/2005	10:35	1.21E+05	3.63E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	003			12/29/2005	10:50	1.47E+05	4.41E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	004			1/6/2006	11:35	1.59E+05	4.77E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	005			1/13/2006	11:40	1.31E+05	3.93E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	006			1/20/2006	10:00	2.11E+05	6.33E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	007			1/27/2006	10:50	2.12E+05	6.36E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	008			2/3/2006	12:20	2.24E105	2.69E104	6.33E102	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	009			2/7/2006	15:15	1.74E+05	2.38E+04	6.37E+02	9.22E-02	3.78E-01	4.67E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	010			2/16/2006	13:55	1.99E+05	2.55E+04	6.36E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	MW-34
	011			3/3/2006	9:35	2.30E+05	6.90E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	012			4/7/2006	10:05	2.76E+05	8.28E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	013			5/17/2006	13:15	3.64E+04	5.52E+03	8.35E+02	2.50E-02	6.63E-01	9.24E-01	7.84E+00	1.39E+01	1.55E+01	2.72E+00	1.31E+01	1.44E+01	NA	NA	NA	
	014			6/26/2006	10:20	1.05E+04	8.52E+02	3.41E+02	3.71E-01	6.49E-01	7.79E-01	1.83E+00	7.85E+00	8.96E+00	5.84E+00	7.34E+00	9.37E+00	NA	NA	NA	
	015			7/26/2006	10:20	4.07E104	3.51E103	1.57E103	2.18E-01	8.97E-01	1.16E100	-1.73E-01	4.87E100	5.24E100	-2.54E-01	5.64E100	6.78E100	NA	NA	NA	
	016			8/24/2006	12:18	6.69E+04	1.05E+04	3.39E+03	NA	NA	NA	1.62E+00	5.81E+00	6.78E+00	-1.60E+00	5.89E+00	5.85E+00	NA	NA	NA	
	017			9/21/2006	9:15	1.61E+04	2.78E+03	5.86E+02	0.00E+00	1.12E+00	1.31E+00	6.09E-02	1.69E+00	1.85E+00	-2.10E-01	1.65E+00	1.79E+00	NA	NA	NA	
	018	16.5	2.0	8/3/2007	10:21	2.22E+04	7.44E+02	2.13E+02	3.94E-02	7.08E-01	9.04E-01	-1.55E+00	4.53E+00	4.44E+00	2.12E+00	3.40E+00	4.01E+00	NA	NA	NA	
MW-35	001	19.0	-0.4	12/13/2005	13:50	4.23E+04	3.18E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	MW-35
	002			12/19/2005	10:17	7.60E+04	2.28E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	003			12/29/2005	10:00	8.05E+04	2.42E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS															Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-35	004			1/6/2006	11:10	9.54E+04	2.86E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	MW-35
	005			1/13/2006	10:50	9.78E+04	2.93E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	006			1/20/2006	9:30	1.04E+05	3.12E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	007			1/27/2006	11:00	3.87E+04	1.16E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	008			2/3/2006	12:20	5.14E+04	1.29E+04	6.33E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	009			2/7/2006	14:40	8.44E+04	1.66E+04	6.37E+02	1.62E-01	4.32E-01	5.28E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	010			2/16/2006	13:30	9.04E+04	1.72E+04	6.36E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	011			3/3/2006	9:05	1.19E+05	3.57E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	012			4/7/2006	9:55	5.62E+04	1.69E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	013			5/17/2006	13:37	4.07E+04	6.15E+03	8.72E+02	4.70E-01	7.53E-01	7.87E-01	6.46E+00	2.07E+01	1.64E+01	3.04E+00	1.37E+01	1.53E+01	NA	NA	NA	
	014			6/26/2006	10:40	1.74E+04	1.37E+03	4.29E+02	-2.30E-01	6.66E-01	8.69E-01	-1.34E+00	1.01E+01	1.09E+01	-2.45E+00	8.92E+00	9.36E+00	NA	NA	NA	
	015			9/21/2006	9:30	4.53E+04	7.19E+03	9.12E+02	6.26E-01	1.30E+00	1.41E+00	-3.15E-01	1.96E+00	1.82E+00	2.44E-01	1.49E+00	1.69E+00	NA	NA	NA	
	016	15.0	3.6	6/15/2007	13:58	2.03E+03	5.87E+02	3.84E+02	2.26E-01	4.34E-01	4.91E-01	4.66E+01	8.82E+00	2.81E+00	-1.27E+00	2.58E+00	2.63E+00	6.18E+00	1.92E+01	2.20E+01	
	017			8/3/2007	10:22	5.95E+03	5.58E+02	2.70E+02	9.45E-02	5.76E-01	6.98E-01	-9.20E-01	2.71E+00	2.82E+00	5.74E-01	2.88E+00	3.33E+00	NA	NA	NA	
MW-36-24[6]	001	16.1	-4.3	2/7/2006	17:00	NA	NA	NA	1.29E+00	5.48E-01	5.53E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	MW-36-24[6]
	002			2/27/2006	9:45	3.04E+04	9.95E+03	6.36E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	003			3/23/2006	16:00	3.42E+04	3.81E+03	1.86E+03	9.99E-01	6.42E-01	6.42E-01	-3.86E+00	1.01E+01	1.05E+01	5.02E+00	9.33E+00	1.22E+01	6.41E+01	1.59E+01	1.53E+01	
	004			4/5/2006	10:30	NA	NA	NA	1.56E+00	4.86E-01	4.35E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	005			6/5/2006	12:20	2.02E+02	1.59E+02	1.51E+02	3.70E-01	7.66E-01	9.31E-01	3.99E+00	1.03E+01	1.21E+01	6.90E-02	1.02E+01	1.12E+01	NA	NA	NA	
	006			8/28/2006	10:30	2.45E+02	1.80E+02	1.71E+02	NA	NA	NA	-1.04E+00	3.27E+00	3.32E+00	1.66E+00	3.06E+00	4.19E+00	NA	NA	NA	
	007	17.0	-5.2	6/27/2007	10:40	1.54E+02	1.76E+02	1.93E+02	5.90E-01	7.92E-01	8.46E-01	3.31E-01	2.81E+00	3.17E+00	4.00E-01	3.03E+00	3.45E+00	NA	NA	NA	
	008			8/8/2007	13:45	1.63E+02	1.85E+02	2.04E+02	-5.35E-01	6.81E-01	9.31E-01	1.53E-01	3.40E+00	3.77E+00	3.56E+00	3.40E+00	4.17E+00	-7.46E+00	2.10E+01	2.54E+01	
	009			10/18/2007	10:06	2.86E+02	1.91E+02	2.01E+02	8.56E-02	7.60E-01	9.26E-01	7.20E-01	2.91E+00	3.37E+00	3.11E-01	3.01E+00	3.47E+00	NA	NA	NA	
	010			1/23/2008	14:18	2.16E+03	2.36E+02	1.70E+02	1.03E-01	3.12E-01	3.76E-01	2.92E-02	2.39E+00	2.67E+00	-4.84E-01	2.37E+00	2.57E+00	NA	NA	NA	
	011			7/24/2008	13:57	1.02E+03	1.22E+02	1.63E+02	3.38E-01	3.75E-01	6.24E-01	3.97E-01	2.09E+00	3.61E+00	-5.45E-01	2.37E+00	3.85E+00	NA	NA	NA	
MW-36-41	001	37.0	-25.2	2/10/2006	11:10	4.75E+04	1.24E+04	6.38E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	MW-36-41
	002			2/27/2006	13:45	4.58E+04	1.22E+04	6.36E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	003			3/24/2006	12:45	5.52E+04	4.65E+03	1.86E+03	3.48E+00	5.46E-01	4.16E-01	-5.91E+00	1.39E+01	1.45E+01	2.97E+00	1.53E+01	1.74E+01	4.87E+01	1.65E+01	1.65E+01	
	004			4/5/2006	12:55	NA	NA	NA	3.53E+00	6.24E-01	5.02E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	005			6/5/2006	11:30	2.05E+04	3.17E+03	6.01E+02	2.30E+00	6.59E-01	6.10E-01	-3.37E+00	1.27E+01	1.33E+01	6.21E-02	1.03E+01	1.13E+01	NA	NA	NA	
	006			8/28/2006	10:10	2.01E+04	3.09E+03	6.45E+02	NA	NA	NA	1.96E+00	4.15E+00	5.22E+00	-2.78E-01	3.56E+00	3.78E+00	NA	NA	NA	
	007			6/27/2007	12:30	6.11E+03	3.50E+02	1.74E+02	2.18E+00	1.17E+00	9.85E-01	4.30E-01	4.61E+00	1.74E+00	1.36E+00	2.91E+00	3.67E+00	NA	NA	NA	
MW-36-52	001	49.7	-37.9	2/10/2006	10:30	2.24E+04	8.55E+03	6.38E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	MW-36-52
	002			2/27/2006	12:05	2.57E+04	9.14E+03	6.36E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	003			3/24/2006	16:00	2.68E+04	3.47E+03	1.87E+03	4.11E+00	5.66E-01	5.14E-01	4.47E+00	9.06E+00	1.04E+01	-2.47E+00	9.69E+00	1.03E+01	1.18E+01	1.44E+01	1.54E+01	
	004			4/5/2006	14:30	NA	NA	NA	5.01E+00	7.23E-01	6.26E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	005			6/5/2006	11:30	2.40E+04	3.68E+03	6.40E+02	4.42E+00	8.33E-01	5.53E-01	3.49E+00	1.05E+01	1.21E+01	4.80E-01	1.04E+01	1.15E+01	NA	NA	NA	
	006			8/28/2006	10:00	1.41E+04	2.19E+03	5.35E+02	NA	NA	NA	4.06E-01	6.52E+00	7.36E+00	-2.69E-01	5.23E+00	5.69E+00	NA	NA	NA	MW-36-52
	007	50.0	-38.2	6/27/2007	11:45	1.01E+04	4.89E+02	1.95E+02	2.62E+00	1.09E+00	3.28E-01	-3.82E-01	2.77E+00	2.99E+00	9.25E-01	2.61E+00	3.14E+00	NA	NA	NA	
	008			8/8/2007	14:15	1.25E+04	1.24E+03	4.60E+02	2.26E+00	1.00E+00	2.82E-01	1.30E+00	2.97E+00	3.51E+00	-8.82E-01	3.31E+00	3.55E+00	4.27E+00	2.14E+01	2.47E+01	
	009			1/23/2008	14:13	1.13E+04	4.47E+02	1.71E+02	4.85E+00	9.69E-01	4.24E-01	-2.89E-01	2.01E+00	2.25E+00	4.08E-01	1.86E+00	2.20E+00	NA	NA	NA	
	010			7/24/2008	16:00	1.26E+04	7.66E+02	3.74E+02	4.19E+00	6.35E-01	5.57E-01	-4.79E-01	2.24E+00	3.69E+00	2.77E-02	2.11E+00	3.53E+00	NA	NA	NA	
	010			7/24/2008	16:00	NA	NA	NA	5.67E+00	7.42E-01	4.73E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-37-22	001	16.5	-1.5	2/24/2006	9:50	1.07E+04	5.92E+03	6.39E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	MW-37-22
	002			2/28/2006	10:20	1.28E+04	2.03E+03	1.31E+03	2.37E+00	8.91E-01	8.41E-01	2.41E+00	1.92E+01	1.95E+01	3.60E+00	1.58E+01	1.77E+01	4.24E+01	1.48E+01	1.47E+01	
	002			2/28/2006	10:20	NA	NA	NA	2.40E+00	9.10E-01	9.16E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	003			3/10/2006	10:35	2.32E+04	2.57E+03	1.28E+03	4.70E+00	9.84E-01	7.87E-01	4.61E+00	1.46E+01	1.63E+01	5.65E+00	1.39E+01	1.57E+01	2.08E+01	1.27E+01	1.33E+01	
	004			3/27/2006	10:35	3.49E+04	3.78E+03	1.81E+03	4.05E+00	8.76E-01	6.97E-01	9.75E-01	4.68E+00	5.21E+00	7.46E-01	4.48E+00	4.97E+00	5.43E+01	1.53E+01	1.52E+01	

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS														Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-37-22	005			6/27/2006	10:25	1.05E+04	8.55E+02	3.40E+02	9.57E+00	1.20E+00	7.87E-01	3.20E+00	6.92E+00	8.00E+00	-8.05E-01	6.94E+00	7.43E+00	NA	NA	NA	MW-37-22
	006			9/29/2006	9:30	7.37E+03	1.22E+03	3.76E+02	1.42E+01	1.80E+00	9.01E-01	-3.84E-02	8.51E+00	9.49E+00	-1.03E+00	7.63E+00	7.69E+00	NA	NA	NA	
	007	17.0	-2.0	6/27/2007	10:50	4.05E+03	3.35E+02	1.94E+02	1.49E+01	2.13E+00	8.72E-01	-2.26E+00	4.88E+00	3.50E+00	-1.12E+00	3.24E+00	3.34E+00	NA	NA	NA	
	008			8/7/2007	10:55	2.79E+03	2.69E+02	1.89E+02	1.83E+01	2.07E+00	8.57E-01	2.74E+00	3.93E+00	4.22E+00	4.23E-01	3.07E+00	3.54E+00	NA	NA	NA	
	009			10/15/2007	14:30	2.26E+03	2.22E+02	1.69E+02	2.29E+01	2.28E+00	4.67E-01	1.33E+00	3.25E+00	3.78E+00	-1.42E+00	3.44E+00	3.44E+00	NA	NA	NA	
	010			1/23/2008	10:42	6.52E+03	3.54E+02	1.71E+02	8.73E+00	1.27E+00	4.63E-01	-2.09E+00	2.96E+00	2.86E+00	2.34E-01	3.08E+00	3.49E+00	NA	NA	NA	
	011			7/24/2008	11:20	4.33E+03	2.28E+02	1.95E+02	1.22E+01	1.25E+00	7.14E-01	4.32E-01	2.13E+00	3.66E+00	2.97E+00	2.57E+00	4.83E+00	NA	NA	NA	
MW-37-32	001	29.8	-14.8	2/24/2007	10:55	3.01E+04	9.93E+03	6.39E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	MW-37-32
	002			2/28/2006	12:00	2.86E+04	2.73E+03	1.32E+03	1.78E+01	1.49E+00	2.22E+00	1.27E+01	1.93E+01	2.17E+01	1.50E+01	1.90E+01	2.20E+01	3.41E+01	1.46E+01	1.48E+01	
	002			2/28/2006	12:00	NA	NA	NA	1.82E+01	1.72E+00	2.28E+00	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	003			3/10/2006	12:50	2.83E+04	2.79E+03	1.28E+03	1.52E+01	1.39E+00	1.90E+00	1.43E+01	1.59E+01	1.78E+01	1.51E+00	1.51E+01	1.65E+01	1.13E+01	1.26E+01	1.34E+01	
	004			3/27/2006	11:10	1.39E+04	2.61E+03	1.72E+03	1.95E+01	1.59E+00	2.44E+00	1.10E+00	4.72E+00	5.25E+00	-8.50E-01	4.41E+00	4.80E+00	6.09E+00	1.40E+01	1.51E+01	
	005			6/27/2006	9:15	7.92E+03	6.63E+02	2.99E+02	2.98E+01	2.64E+00	3.72E+00	-2.37E-01	5.24E+00	6.07E+00	-2.02E-01	4.75E+00	5.78E+00	NA	NA	NA	
	006			9/29/2006	10:15	1.15E+04	1.88E+03	4.64E+02	1.53E+01	1.80E+00	1.91E+00	-3.21E+00	8.98E+00	8.67E+00	2.51E+00	8.73E+00	1.06E+01	NA	NA	NA	
	007	29	-14	6/27/2007	12:20	3.13E+03	3.05E+02	1.93E+02	1.85E+01	2.37E+00	2.31E+00	-1.49E+00	3.86E+00	3.38E+00	1.63E+00	3.38E+00	4.14E+00	NA	NA	NA	
	008			8/7/2007	10:56	3.81E+03	2.97E+02	1.87E+02	1.89E+01	2.02E+00	2.36E+00	1.99E+00	3.18E+00	3.88E+00	1.88E+00	3.19E+00	4.01E+00	NA	NA	NA	
	009			10/15/2007	14:36	2.49E+03	2.30E+02	1.69E+02	2.13E+01	2.19E+00	2.66E+00	8.79E-01	4.61E+00	4.81E+00	2.53E+00	3.75E+00	4.70E+00	NA	NA	NA	
	010			1/23/2008	11:03	6.76E+03	3.57E+02	1.70E+02	1.52E+01	1.59E+00	3.65E-01	1.09E+00	2.70E+00	3.16E+00	-5.32E-02	2.72E+00	2.55E+00	NA	NA	NA	
	011			7/24/2008	12:28	5.16E+03	2.45E+02	1.95E+02	2.06E+01	1.51E+00	8.63E-01	-4.08E-01	1.58E+00	2.18E+00	-1.46E-01	2.04E+00	2.58E+00	NA	NA	NA	
MW-37-40	001	39.2	-24.2	2/24/2006	11:35	1.68E+04	7.41E+03	6.39E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	MW-37-40
	002			2/28/2006	11:40	1.47E+04	2.13E+03	1.32E+03	3.86E+00	1.23E+00	1.19E+00	1.79E+01	1.71E+01	1.96E+01	1.53E+00	1.64E+01	1.81E+01	5.65E+01	1.65E+01	1.61E+01	
	002			2/28/2006	11:40	NA	NA	NA	4.91E+00	1.23E+00	1.08E+00	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	003			3/10/2006	10:25	1.70E+04	2.30E+03	1.29E+03	1.35E+01	1.32E+00	7.28E-01	5.51E+00	1.45E+01	1.62E+01	1.99E+00	1.47E+01	1.62E+01	1.24E+01	1.35E+01	1.44E+01	
	004			3/27/2006	11:55	1.56E+04	2.82E+03	1.82E+03	1.11E+01	1.12E+00	5.90E-01	3.34E+00	6.14E+00	5.43E+00	4.03E+00	4.71E+00	5.39E+00	6.37E+00	1.35E+01	1.47E+01	
	006			6/27/2006	10:15	1.42E+04	1.13E+03	3.89E+02	2.44E+01	1.71E+00	7.03E-01	8.68E+00	7.68E+00	9.25E+00	-4.36E+00	6.70E+00	6.60E+00	NA	NA	NA	
	007	39	-24	6/27/2007	11:00	6.35E+03	3.99E+02	1.93E+02	4.69E+00	1.14E+00	8.47E-01	5.92E-01	3.36E+00	3.91E+00	-1.07E+00	3.15E+00	3.22E+00	NA	NA	NA	
	008			8/7/2007	13:45	5.85E+03	3.50E+02	1.88E+02	9.76E+00	1.51E+00	6.27E-01	1.10E+00	3.12E+00	3.71E+00	-2.48E-01	3.36E+00	3.70E+00	NA	NA	NA	
	009			10/15/2007	15:00	5.69E+03	3.03E+02	1.69E+02	5.98E+00	1.28E+00	7.48E-01	7.63E-01	2.91E+00	3.38E+00	5.99E-01	2.82E+00	3.32E+00	NA	NA	NA	
	010			2/1/2008	17:20	6.73E+03	3.17E+02	1.33E+02	9.48E-01	8.54E-01	8.45E-01	3.09E-01	2.63E+00	2.95E+00	-3.70E-01	2.75E+00	2.94E+00	-4.35E+00	1.46E+01	1.76E+01	
	011			7/24/2008	13:12	5.24E+03	2.43E+02	1.91E+02	1.31E+00	4.41E-01	5.07E-01	-1.10E+00	1.52E+00	2.48E+00	-1.35E+00	2.11E+00	2.70E+00	NA	NA	NA	
MW-37-57	001	53.2	-38.2	2/24/2006	10:30	1.60E+04	7.22E+03	6.39E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	MW-37-57
	002			2/28/2006	13:35	1.33E+04	2.06E+00	1.32E+03	2.22E+01	1.75E+00	1.05E+00	1.81E+00	2.14E+01	2.44E+01	5.22E+00	1.82E+01	2.14E+01	2.91E+01	1.50E+01	1.54E+01	
	002			2/28/2006	13:35	NA	NA	NA	2.27E+01	2.00E+00	1.02E+00	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	003			3/10/2006	11:45	1.91E+04	2.40E+03	1.29E+03	2.29E+01	1.74E+00	7.68E-01	1.46E+00	1.76E+01	1.77E+01	7.74E+00	1.53E+01	1.73E+01	1.04E+01	1.33E+01	1.43E+01	
	004			3/27/2006	13:55	1.59E+04	2.84E+03	1.81E+03	1.65E+01	1.38E+00	6.60E-01	2.52E+00	5.25E+00	5.80E+00	3.94E+00	4.86E+00	5.53E+00	3.71E+00	1.37E+01	1.49E+01	
	005			6/27/2006	9:35	4.48E+04	3.42E+03	6.83E+02	2.73E+01	1.89E+00	8.18E-01	NA	NA	NA	2.04E+00	5.77E+00	6.52E+00	NA	NA	NA	
	006			9/29/2006	10:40	1.05E+04	1.74E+03	4.52E+02	1.81E+01	1.88E+00	7.87E-01	-3.39E+00	8.04E+00	7.81E+00	2.60E+00	8.86E+00	1.07E+01	NA	NA	NA	
	007	55	-40	6/27/2007	12:20	5.89E+03	3.89E+02	1.95E+02	2.42E+01	3.03E+00	8.84E-01	2.45E+00	3.51E+00	4.32E+00	-9.58E-02	4.67E+00	4.84E+00	NA	NA	NA	
	008			8/7/2007	12:55	6.68E+03	3.68E+02	1.88E+02	2.33E+01	2.15E+00	5.01E-01	-1.35E+00	3.27E+00	3.42E+00	-3.64E-02	3.86E+00	4.33E+00	NA	NA	NA	
	009			10/15/2007	15:00	4.88E+03	2.85E+02	1.68E+02	2.78E+01	2.49E+00	5.53E-01	3.62E-01	2.67E+00	2.72E+00	1.20E-01	2.40E+00	2.77E+00	NA	NA	NA	
	010			2/1/2008	16:31	6.63E+03	3.14E+02	1.33E+02	2.89E+01	3.20E+00	9.62E-01	-9.11E-01	3.72E+00	3.68E+00	-2.93E-01	3.12E+00	3.45E+00	8.47E-01	1.46E+01	1.71E+01	
	011			7/24/2008	13:20	5.33E+03	2.47E+02	1.94E+02	2.12E+01	1.46E+00	5.27E-01	-7.11E-01	1.88E+00	3.07E+00	-1.17E+00	2.10E+00	3.24E+00	NA	NA	NA	
MW-38	002	35.3	-21.0	12/8/05	10:30	9.85E+02	4.38E+02	4.54E+02	-4.38E+00	9.29E+00	1.25E+01	2.93E+00	8.80E+00	6.57E+00	2.99E+00	8.98E+00	7.06E+00	NA	NA	NA	MW-38
	003			12/30/05	11:50	2.50E+02	4.29E+02	4.71E+02	NA	NA	NA	2.84E+00	8.51E+00	6.39E+00	2.81E+00	8.43E+00	6.71E+00	NA	NA	NA	
	004			1/10/06	13:50	1.01E+03	4.50E+02	4.66E+02	NA	NA	NA	3.71E+00	1.11E+01	8.02E+00	3.55E+00	1.06E+01	8.02E+00	NA	NA	NA	
	005			1/19/06	13:15	7.58E+02	4.29E+02	4.61E+02	NA	NA	NA	3.13E+00	9.38E+00	7.14E+00	3.71E+00	1.11E+01	8.77E+00	NA	NA	NA	
	006			1/25/06	12:15	1.44E+03	4.59E+02	4.61E+02	NA	NA	NA	3.67E+00	1.10E+01	8.21E+00	4.18E+00	1.25E+01	9.71E+00	NA	NA	NA	
	007			2/1/06	13:30	3.39E+02	4.23E+02	4.60E+02	NA	NA	NA	3.06E+00	9.19E+00	6.91E+00	3.03E+00	9.09E+00	7.30E+00	NA	NA	NA	MW-38

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS															Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-38	008			2/8/06	11:15	1.88E+02	3.30E+02	3.46E+02	1.35E-01	4.34E-01	5.15E-01	5.29E+00	1.16E+01	1.31E+01	2.41E+00	1.17E+01	1.31E+01	NA	NA	NA	MW-38
	009			2/16/06	10:05	1.47E+02	4.11E+02	4.54E+02	NA	NA	NA	2.91E+00	8.74E+00	6.54E+00	2.48E+00	7.44E+00	6.05E+00	NA	NA	NA	
	010			2/23/06	13:25	2.63E+03	4.98E+02	4.61E+02	NA	NA	NA	1.97E+00	5.90E+00	4.22E+00	1.88E+00	5.63E+00	4.19E+00	NA	NA	NA	
	011			3/3/06	8:50	3.70E+02	4.71E+02	4.66E+02	NA	NA	NA	2.65E+00	7.94E+00	6.38E+00	4.53E+00	1.36E+01	1.08E+01	NA	NA	NA	
	013			5/22/06	9:20	7.59E+02	4.11E+02	4.46E+02	1.52E-01	2.88E-01	3.20E-01	3.42E+00	1.03E+01	7.57E+00	3.40E+00	1.02E+01	7.93E+00	NA	NA	NA	
	014			6/21/06	9:48	9.16E+02	4.38E+02	4.60E+02	-2.66E+00	2.16E+00	2.40E+00	2.52E+00	7.56E+00	5.45E+00	2.50E+00	7.49E+00	5.59E+00	1.10E+00	5.70E+00	6.40E+00	
	014			6/21/06	9:48	7.62E+02	1.77E+02	1.70E+02	NA	NA	NA	5.90E-01	2.10E+00	2.40E+00	1.20E+00	2.07E+00	2.20E+00	NA	NA	NA	
	015			7/6/06	12:00	5.93E+02	4.20E+02	4.52E+02	-3.70E-01	4.50E-01	5.20E-01	3.40E+00	1.02E+01	7.70E+00	2.98E+00	8.95E+00	7.41E+00	NA	NA	NA	
	016-S1			8/7/06	13:23	2.92E+02	4.14E+02	4.47E+02	-2.47E-01	1.44E+00	1.73E+00	2.69E+00	8.07E+00	5.79E+00	2.72E+00	8.15E+00	6.03E+00	NA	NA	NA	
	016			8/7/06	13:23	2.15E+02	1.80E+02	1.74E+02	5.00E-02	6.30E-01	7.10E-01	2.29E+00	6.47E+00	9.51E+00	-7.22E-01	6.90E+00	9.33E+00	2.75E+01	2.94E+01	3.13E+01	
	017			9/5/06	11:30	3.53E+02	1.86E+02	1.67E+02	-5.30E-01	7.80E-01	8.70E-01	3.81E-01	7.68E+00	8.63E+00	-4.48E-01	6.20E+00	6.42E+00	NA	NA	NA	
	017-S1			9/5/06	11:30	3.34E+02	3.99E+02	4.49E+02	NA	NA	NA	2.75E+00	8.26E+00	6.21E+00	3.23E+00	9.69E+00	7.51E+00	NA	NA	NA	
	018			11/22/06	10:38	1.78E+02	4.08E+02	4.50E+02	-7.00E-02	6.60E-01	7.30E-01	3.13E+00	9.38E+00	7.14E+00	3.08E+00	9.25E+00	7.53E+00	NA	NA	NA	
	019			2/12/07	9:58	2.24E+03	6.00E+02	5.30E+02	-5.10E-01	1.32E+00	1.50E+00	2.73E+00	1.92E+00	2.00E+00	-1.03E+00	1.41E+00	1.80E+00	NA	NA	NA	
	020	25.4	-11.1	8/16/07	11:30	6.04E+02	1.53E+02	1.44E+02	-9.21E-02	6.92E-01	8.85E-01	1.21E+00	3.07E+00	3.65E+00	2.48E+00	3.01E+00	3.98E+00	NA	NA	NA	
MW-39-67	001	67.0	13.0	5/22/2007	9:53	4.73E+02	1.77E+02	1.31E+02	2.76E+00	8.57E-01	5.71E-01	1.23E-01	1.67E+00	1.85E+00	1.84E+00	1.88E+00	2.08E+00	-3.11E+00	1.06E+01	1.23E+01	MW-39-67
	002			8/7/2007	16:30	3.25E+02	1.86E+02	1.95E+02	4.78E+00	1.13E+00	6.32E-01	2.59E+00	4.62E+00	3.57E+00	2.62E-01	2.55E+00	2.96E+00	NA	NA	NA	
	003			1/17/2008	14:35	3.57E102	1.95E102	1.83E102	3.52E100	1.29E100	8.53E-01	-1.28E-01	3.17E100	3.57E100	1.76E100	3.63E100	4.25E100	NA	NA	NA	
MW-39-84	001	83.5	-3.5	5/22/2007	10:38	5.91E+02	1.89E+02	1.29E+02	1.72E+00	7.22E-01	5.57E-01	-9.07E-02	1.53E+00	1.69E+00	5.61E-01	1.58E+00	1.81E+00	-1.68E+00	9.99E+00	1.15E+01	MW-39-84
	002			8/7/2007	15:30	2.52E+02	1.77E+02	1.91E+02	7.97E-01	7.18E-01	7.30E-01	3.55E-01	3.07E+00	3.41E+00	-1.11E+00	3.59E+00	3.76E+00	NA	NA	NA	
	003			1/17/2008	13:25	1.43E+02	1.70E+02	1.84E+02	1.78E+00	9.47E-01	7.24E-01	-2.74E+00	2.99E+00	2.86E+00	8.36E-01	2.94E+00	3.50E+00	NA	NA	NA	
MW-39-102	001	101.5	-21.5	5/22/2007	10:40	8.05E+02	2.13E+02	1.29E+02	1.32E+00	7.17E-01	6.21E-01	-3.99E-02	1.81E+00	1.99E+00	6.54E-01	1.78E+00	2.11E+00	6.39E-02	1.15E+01	1.32E+01	MW-39-102
	002			8/7/2007	14:25	3.21E+02	1.79E+02	1.88E+02	4.71E-01	5.61E-01	5.95E-01	-7.63E-01	3.35E+00	3.60E+00	-2.47E+00	4.70E+00	4.22E+00	NA	NA	NA	
	003			1/17/2008	13:32	1.54E+02	1.67E+02	1.79E+02	9.88E-01	8.36E-01	7.97E-01	7.42E-01	2.37E+00	2.83E+00	7.91E-01	3.45E+00	2.98E+00	NA	NA	NA	
MW-39-124	001	124.0	-44.0	5/22/2007	9:50	2.61E102	1.49E102	1.31E102	9.26E-01	9.70E-01	1.00E100	-1.15E-01	1.64E100	1.80E100	-5.31E-01	1.54E100	1.63E100	3.55E100	1.17E101	1.33E101	MW-39-124
	002			8/7/2007	13:40	1.92E+02	1.73E+02	1.88E+02	5.90E-01	8.57E-01	9.43E-01	-1.14E+00	2.94E+00	3.06E+00	4.97E-01	3.17E+00	3.61E+00	NA	NA	NA	
	003			1/17/2008	15:40	1.67E+02	1.64E+02	1.73E+02	1.48E+00	9.71E-01	8.60E-01	6.55E-01	2.61E+00	3.00E+00	9.85E-01	2.03E+00	2.55E+00	NA	NA	NA	
MW-39-183	001	182.5	-102.5	5/22/2007	10:08	2.47E+02	1.45E+02	1.29E+02	6.51E-01	8.82E-01	9.53E-01	6.42E-01	1.88E+00	1.89E+00	3.09E-02	1.58E+00	1.79E+00	0.00E+00	1.09E+01	1.25E+01	MW-39-183
	002			8/7/2007	12:40	1.88E+02	1.73E+02	1.89E+02	7.11E-01	8.02E-01	8.32E-01	1.38E+00	5.12E+00	5.12E+00	2.34E+00	4.56E+00	5.46E+00	NA	NA	NA	
	003			1/17/2008	11:55	4.65E+01	1.56E+02	1.82E+02	8.29E-01	6.17E-01	5.82E-01	-3.72E-01	3.51E+00	3.92E+00	0.00E+00	2.03E+00	2.20E+00	NA	NA	NA	
MW-39-195	001	195.0	-115.0	5/22/2007	12:45	2.55E+02	1.50E+02	1.33E+02	1.30E+00	6.90E-01	5.69E-01	0.00E+00	7.67E+00	4.34E+00	3.54E-01	4.16E+00	4.82E+00	-2.52E+00	9.95E+00	1.15E+01	MW-39-195
	002			8/7/2007	12:00	2.00E+02	1.70E+02	1.85E+02	5.92E-01	6.23E-01	6.55E-01	-4.08E-02	4.14E+00	4.06E+00	-2.76E-01	4.56E+00	4.30E+00	NA	NA	NA	
	003			1/17/2008	17:28	9.63E+01	1.64E+02	1.84E+02	8.97E-01	8.51E-01	8.38E-01	7.57E-01	4.08E+00	4.05E+00	8.15E-01	3.42E+00	4.01E+00	NA	NA	NA	
MW-40-27	001	26.7	46.5	6/5/2007	11:00	1.56E+02	1.58E+02	1.63E+02	-7.82E-04	6.48E-01	8.50E-01	2.70E-02	3.01E+00	3.39E+00	1.48E+00	2.90E+00	3.17E+00	NA	NA	NA	MW-40-27
	002			7/23/2007	12:35	1.62E+02	1.59E+02	1.69E+02	3.32E-01	5.90E-01	6.62E-01	2.52E+00	3.39E+00	3.88E+00	-5.97E-02	3.45E+00	3.83E+00	NA	NA	NA	
	003			1/7/2008	16:28	1.44E+02	1.70E+02	1.82E+02	-4.39E-01	4.49E-01	7.84E-01	-4.17E-01	1.74E+00	1.87E+00	6.09E-01	1.70E+00	1.99E+00	NA	NA	NA	
	004			8/11/2008	13:19	2.22E+02	1.06E+02	1.72E+02	3.66E-01	4.20E-01	7.05E-01	6.08E-01	2.28E+00	4.00E+00	-3.72E-01	2.56E+00	3.83E+00	-7.57E+00	1.15E+01	2.05E+01	
MW-40-46	001	46.2	27.0	6/5/2007	11:50	1.42E+02	1.58E+02	1.66E+02	-3.17E-01	5.82E-01	8.88E-01	7.90E-01	3.59E+00	3.39E+00	-2.35E+00	2.70E+00	2.27E+00	NA	NA	NA	MW-40-46
	002			7/23/2007	12:15	9.48E101	1.53E102	1.71E102	3.50E-01	5.61E-01	6.28E-01	-9.08E-01	3.79E100	4.09E100	-1.72E100	3.07E100	2.90E100	NA	NA	NA	
	003			10/12/2007	14:45	-1.59E+01	1.52E+02	1.74E+02	-2.14E-02	5.10E-01	6.85E-01	-3.80E-01	3.72E+00	3.59E+00	4.94E-01	3.72E+00	4.26E+00	NA	NA	NA	
	004			1/7/2008	14:42	-1.96E+01	1.45E+02	1.80E+02	8.04E-01	8.55E-01	8.75E-01	-1.21E+00	2.84E+00	3.00E+00	1.16E+00	2.58E+00	2.82E+00	NA	NA	NA	
	005			8/11/2008	13:35	1.68E+02	1.04E+02	1.71E+02	-3.25E-01	3.77E-01	8.09E-01	1.25E-01	1.99E+00	3.31E+00	1.09E+00	2.05E+00	3.64E+00	4.04E+00	1.17E+01	2.01E+01	
MW-40-81	001	80.7	-7.5	6/5/2007	12:37	1.63E+02	1.59E+02	1.63E+02	-2.93E-02	6.98E-01	9.11E-01	-1.00E+00	3.09E+00	3.22E+00	-4.70E-03	3.79E+00	3.62E+00	NA	NA	NA	MW-40-81
	002			7/23/2007	13:00	6.95E+01	1.52E+02	1.72E+02	2.45E-01	6.00E-01	6.94E-01	-7.08E-01	4.95E+00	5.20E+00	2.31E+00	3.81E+00	4.95E+00	NA	NA	NA	
	003			10/12/2007	10:52	6.99E+01	1.53E+02	1.73E+02	-9.65E-02	5.05E-01	7.10E-01	5.47E-01	4.00E+00	4.48E+00	7.73E-01	4.02E+00	4.64E+00	NA	NA	NA	
	004			1/7/2008	14:35	1.09E102	1.64E102	1.81E102	2.87E-01	7.05E-01	8.26E-01	-7.49E-01	2.51E100	2.38E100	-2.66E-01	1.77E100	1.95E100	NA	NA	NA	
	005			8/11/2008	9:43	2.42E+02	1.06E+02	1.71E+02	1.68E-01	3.65E-01	6.52E-01	-7.84E-02	1.69E+00	2.78E+00	2.60E-01	1.92E+00	3.25E+00	-2.96E+00	1.10E+01	1.92E+01	
MW-40-100	001	100.2	-27.0	6/5/2007	11:15	1.76E+02	1.61E+02	1.64E+02	3.40E-01	6.16E-01	6.94E-01	-1.92E+00	3.06E+00	3.04E+00	-1.98E+00	3.87E+00	3.59E+00	NA	NA	NA	MW-40-100

IPEC00201778

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS														Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-40-100	002			7/23/2007	13:20	8.12E+01	1.55E+02	1.75E+02	2.91E-01	6.18E-01	6.96E-01	-4.67E-01	1.91E+00	2.10E+00	1.78E-01	1.94E+00	2.20E+00	NA	NA	NA	MW-40-100
	003			10/12/2007	11:03	5.95E+01	1.53E+02	1.73E+02	-7.39E-02	5.75E-01	7.69E-01	1.93E+00	3.57E+00	3.87E+00	8.90E-01	3.30E+00	3.61E+00	NA	NA	NA	
	004			1/7/2008	11:55	1.98E+01	1.52E+02	1.81E+02	-7.69E-02	5.85E-01	8.00E-01	3.13E-01	2.27E+00	2.60E+00	8.84E-02	2.75E+00	2.86E+00	NA	NA	NA	
	006			5/30/2008	12:45	1.16E+02	9.84E+01	1.60E+02	1.16E-01	5.60E-01	9.81E-01	-7.43E-01	2.12E+00	3.48E+00	-8.73E-01	2.00E+00	3.15E+00	NA	NA	NA	
	007			8/11/2008	10:10	1.93E+02	1.05E+02	1.71E+02	-3.44E-02	2.85E-01	5.83E-01	-1.18E-01	1.59E+00	2.68E+00	6.38E-01	1.52E+00	2.70E+00	0.00E+00	1.09E+01	1.89E+01	
MW-40-127	001	127.2	-54.0	6/5/2007	12:55	1.87E+02	1.62E+02	1.63E+02	2.60E-01	5.05E-01	5.71E-01	7.57E-01	2.98E+00	3.41E+00	-5.59E-03	2.94E+00	3.26E+00	NA	NA	NA	MW-40-127
	002			7/23/2007	15:15	4.26E+01	1.44E+02	1.68E+02	3.83E-01	5.15E-01	5.73E-01	-1.17E+00	1.67E+00	1.76E+00	2.04E-01	1.59E+00	1.77E+00	NA	NA	NA	
	003			10/12/2007	11:30	2.83E+01	1.44E+02	1.64E+02	1.01E-01	4.97E-01	6.24E-01	-2.32E+00	3.90E+00	4.06E+00	-1.51E+00	3.72E+00	3.79E+00	NA	NA	NA	
	004			1/7/2008	12:30	9.75E+00	1.48E+02	1.79E+02	5.17E-01	6.83E-01	7.23E-01	6.45E-01	2.42E+00	2.77E+00	3.24E-01	2.28E+00	2.59E+00	NA	NA	NA	
	006			5/30/2008	13:00	3.27E+01	9.16E+01	1.63E+02	-4.84E-01	5.30E-01	9.68E-01	6.92E-01	2.23E+00	3.43E+00	1.36E+00	2.00E+00	3.62E+00	NA	NA	NA	
	007			8/11/2008	10:34	1.68E+02	1.04E+02	1.70E+02	1.65E-01	2.41E-01	4.19E-01	1.24E-01	1.65E+00	2.81E+00	7.30E-03	1.49E+00	2.51E+00	-8.77E+00	1.13E+01	2.01E+01	
MW-40-162	001	161.7	-88.5	6/5/2007	14:45	1.40E+02	1.56E+02	1.64E+02	2.94E-01	4.53E-01	5.04E-01	-1.67E+00	5.33E+00	4.95E+00	3.85E-01	4.68E+00	4.53E+00	NA	NA	NA	MW-40-162
	002			7/23/2007	17:40	2.59E+01	1.46E+02	1.73E+02	1.19E-01	4.45E-01	5.07E-01	-2.51E-01	2.81E+00	1.75E+00	7.27E-01	1.45E+00	1.69E+00	NA	NA	NA	
	003			10/12/2007	12:54	4.45E+01	1.49E+02	1.69E+02	-5.48E-02	6.20E-01	8.19E-01	-1.11E+00	4.47E+00	4.05E+00	-1.01E+00	3.31E+00	3.47E+00	NA	NA	NA	
	004			1/7/2008	13:10	4.96E+01	1.56E+02	1.82E+02	7.93E-02	3.63E-01	4.48E-01	4.17E-01	2.52E+00	2.87E+00	3.63E-01	2.40E+00	2.72E+00	NA	NA	NA	
	005			8/11/2008	11:44	2.30E+02	1.08E+02	1.75E+02	7.70E-02	4.19E-01	7.81E-01	6.25E-01	2.43E+00	4.16E+00	3.15E+00	2.07E+00	4.11E+00	-5.27E+00	1.22E+01	2.16E+01	
MW-41-40	002	34.4	20.5	4/12/2006	15:00	7.26E+02	2.07E+02	1.56E+02	2.63E+00	1.74E+00	1.58E+00	2.91E+00	2.62E+00	3.03E+00	-7.58E-01	2.55E+00	2.74E+00	NA	NA	NA	MW-41-40
	003			5/25/2006	10:00	6.07E102	2.22E102	1.88E102	5.18E100	1.46E100	1.07E100	4.35E100	1.06E101	1.24E101	-1.16E100	1.07E101	1.14E101	NA	NA	NA	
	004			6/12/2006	9:50	6.76E+02	2.00E+02	1.51E+02	3.58E+00	6.83E-01	5.31E-01	5.30E+00	1.02E+01	1.19E+01	9.42E-02	9.32E+00	1.02E+01	NA	NA	NA	MW-41-40
	005			7/14/2006	8:45	9.83E+02	2.64E+02	2.07E+02	7.02E+00	2.83E+00	2.09E+00	3.41E+00	1.29E+01	1.63E+01	-2.31E+00	1.07E+01	1.29E+01	NA	NA	NA	
	006			8/16/2006	13:15	4.47E+02	1.95E+02	1.68E+02	NA	NA	NA	7.39E-01	6.84E+00	8.78E+00	1.70E-01	5.46E+00	7.51E+00	NA	NA	NA	
	007			11/13/2006	12:55	4.25E+02	1.38E+02	1.30E+02	4.64E+00	8.70E-01	6.90E-01	5.00E-01	5.70E+00	6.90E+00	1.30E+00	6.90E+00	8.20E+00	3.10E+00	5.70E+00	6.40E+00	
	008	36.0	18.9	6/19/2007	14:45	3.91E+03	7.32E+02	3.60E+02	5.99E+00	1.15E+00	7.49E-01	-3.09E+00	4.42E+00	3.28E+00	-3.47E-01	2.81E+00	3.01E+00	2.21E-01	1.27E+01	1.49E+01	
	009			8/14/2007	14:35	3.80E+02	1.97E+02	2.00E+02	5.96E+00	1.17E+00	7.45E-01	0.00E+00	3.52E+00	3.31E+00	1.40E+00	4.08E+00	4.00E+00	NA	NA	NA	
	010			1/24/2008	16:28	2.15E102	1.80E102	1.93E102	3.05E100	1.07E100	7.54E-01	2.67E100	2.55E100	2.21E100	-5.18E-01	2.00E100	2.16E100	NA	NA	NA	
MW-41-63	001	59.5	-4.6	4/12/2006	14:45	7.01E+02	2.03E+02	1.53E+02	5.49E+00	2.21E+00	1.60E+00	6.98E-01	2.27E+00	2.52E+00	-3.89E-02	2.68E+00	2.78E+00	NA	NA	NA	MW-41-63
	002			5/25/2006	10:20	3.61E+02	2.07E+02	1.92E+02	5.22E+00	1.53E+00	1.10E+00	7.91E-02	9.63E+00	1.15E+01	3.51E+00	7.87E+00	1.07E+01	NA	NA	NA	
	003			6/12/2006	10:05	2.68E+02	1.67E+02	1.52E+02	8.45E-01	5.28E-01	5.86E-01	8.20E-01	8.70E+00	9.55E+00	2.12E+00	7.05E+00	8.29E+00	NA	NA	NA	
	004			7/18/2006	13:04	2.43E+02	1.95E+02	1.92E+02	2.17E+00	9.90E-01	8.04E-01	3.04E+00	9.49E+00	1.11E+01	1.73E-01	8.00E+00	8.75E+00	NA	NA	NA	
	005			8/16/2006	13:00	3.56E+02	1.89E+02	1.70E+02	NA	NA	NA	3.69E+00	8.12E+00	1.03E+01	-1.55E+00	7.58E+00	7.11E+00	NA	NA	NA	
	006			11/13/2006	13:10	1.57E+02	1.35E+02	1.30E+02	2.06E+00	6.60E-01	6.60E-01	-1.60E+00	4.50E+00	5.70E+00	0.00E+00	5.40E+00	6.60E+00	3.00E+00	6.60E+00	7.30E+00	
	007	61.0	-6.1	6/20/2007	11:05	5.52E+02	1.97E+02	1.86E+02	7.08E+00	1.28E+00	6.27E-01	-3.10E-01	2.37E+00	2.65E+00	-1.06E-02	2.33E+00	2.65E+00	-4.39E-01	1.26E+01	1.48E+01	
	008			8/14/2007	16:10	5.47E+02	2.04E+02	1.99E+02	3.55E+00	9.02E-01	5.31E-01	-2.83E+00	3.40E+00	3.20E+00	1.32E-01	3.48E+00	3.87E+00	NA	NA	NA	
	009			1/25/2008	10:05	3.03E+02	2.79E+02	2.93E+02	3.76E+00	1.13E+00	8.22E-01	0.00E+00	3.33E+00	1.89E+00	5.24E-02	1.64E+00	1.88E+00	NA	NA	NA	
MW-42-49	001	42.6	27.1	3/23/2006	11:15	2.63E+03	6.60E+02	5.89E+02	5.19E+01	1.72E+00	4.88E-01	1.02E+05	7.14E+02	1.00E+02	1.94E+02	2.78E+01	2.32E+01	NA	NA	NA	MW-42-49
	002			3/31/2006	9:29	2.49E+03	4.49E+02	2.37E+02	2.10E+01	9.95E-01	3.67E-01	6.55E+03	1.24E+02	2.76E+01	2.29E+01	2.10E+01	2.50E+01	NA	NA	NA	
	003			4/7/2006	17:52	2.51E+03	7.88E+02	7.37E+02	1.09E+02	2.16E+00	4.09E-01	8.11E+04	7.08E+02	1.01E+02	8.81E+01	2.52E+01	1.97E+01	2.22E+03	1.76E+02	5.84E+01	
	004	41.0	28.7	6/18/2007	15:00	1.34E+03	5.00E+02	3.74E+02	7.73E+01	4.04E+00	6.07E-01	1.90E+04	1.85E+03	1.31E+01	4.29E+00	3.71E+00	4.82E+00	1.03E+03	4.53E+01	1.44E+01	
	005			8/2/2007	14:37	1.50E103	6.26E102	5.53E102	5.02E101	2.96E100	9.41E-01	2.48E104	2.25E103	2.17E101	3.55E100	4.61E100	5.86E100	8.05E102	5.24E101	2.19E101	
	006			8/17/2007	9:30	1.60E+03	2.49E+02	1.71E+02	2.01E+01	2.01E+00	6.03E-01	1.96E+04	2.10E+03	1.68E+01	-4.63E-01	4.86E+00	4.62E+00	5.26E+02	3.69E+01	1.88E+01	
	007			10/4/2007	12:40	2.46E+03	2.87E+02	1.93E+02	4.65E+01	3.12E+00	6.02E-01	3.69E+04	3.14E+03	1.83E+01	1.59E+01	6.25E+00	3.61E+00	1.17E+03	4.94E+01	1.88E+01	
	008			1/21/2008	16:11	1.32E+03	5.25E+02	4.15E+02	3.34E+01	3.18E+00	9.11E-01	3.38E+04	2.93E+03	2.02E+01	0.00E+00	4.13E+00	5.42E+00	5.01E+02	5.01E+01	2.68E+01	
	010			5/13/2008	13:20	3.24E+03	2.56E+02	1.44E+02	2.36E+01	1.54E+00	5.48E-01	1.41E+04	7.89E+02	1.47E+01	1.69E+01	4.47E+00	4.67E+00	7.34E+02	2.85E+01	2.19E+01	
	011			8/4/2008	14:24	3.16E+03	2.65E+02	1.91E+02	3.56E+01	1.72E+00	5.59E-01	1.06E+04	6.13E+02	1.20E+01	-8.47E-03	2.69E+00	4.52E+00	3.13E+02	2.60E+01	2.61E+01	
	012			9/5/2008	12:52	1.32E+04	8.36E+02	5.08E+02	2.96E+02	4.98E+00	4.02E-01	2.21E+04	1.38E+03	1.58E+01	NA	NA	NA	4.62E+02	2.17E+01	2.03E+01	
MW-42-78	001	74.0	-4.3	3/24/2006	9:45	1.28E103	5.87E102	5.75E102	3.09E-01	3.90E-01	4.08E-01	4.46E103	1.36E102	2.22E101	1.08E101	1.71E101	2.08E101	NA	NA	NA	MW-42-78
	002			4/7/2006	17:58	7.92E+02	7.04E+02	7.30E+02	1.03E-01	3.68E-01	3.98E-01	1.98E+03	1.19E+02	3.13E+01	-2.34E+00	2.35E+01	2.51E+01	3.66E+01	1.39E+01	1.43E+01	
	003			6/18/2007	14:40	3.78E+02	1.88E+02	1.88E+02	3.83E-01	5.31E-01	5.78E-01	6.28E+01	1.21E+01	4.11E+00	2.31E+00	3.40E+00	4.00E+00	2.48E+00	1.32E+01	1.52E+01	

IPEC00201779

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS														Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-42-78	004			7/27/2007	11:30	3.19E+02	1.94E+02	1.82E+02	-2.21E-01	4.50E-01	5.87E-01	0.00E+00	4.72E+00	3.48E+00	1.25E+00	3.12E+00	3.79E+00	6.81E+00	1.99E+01	2.28E+01	MW-42-78
	005			8/17/2007	9:56	4.61E+02	1.85E+02	1.75E+02	2.69E-01	6.60E-01	7.62E-01	4.51E+01	8.54E+00	4.06E+00	-7.27E-01	3.18E+00	2.76E+00	3.04E+00	1.71E+01	1.98E+01	
	006			10/4/2007	13:25	4.34E+02	1.94E+02	1.94E+02	2.33E-01	3.09E-01	3.43E-01	3.04E+02	3.44E+01	4.71E+00	3.10E+00	4.04E+00	5.18E+00	6.86E-01	1.53E+01	1.77E+01	
	007			1/21/2008	15:33	3.46E+02	1.89E+02	1.96E+02	-2.51E-01	6.81E-01	9.32E-01	1.08E+02	1.52E+01	3.35E+00	1.71E-01	3.33E+00	3.61E+00	9.73E+00	2.42E+01	2.75E+01	
	009			8/4/2008	12:07	6.18E+02	1.50E+02	1.91E+02	3.91E-01	2.57E-01	3.76E-01	2.71E+00	2.02E+00	3.75E+00	-6.44E-01	2.10E+00	3.29E+00	-7.57E-01	1.52E+01	2.68E+01	
MW-43-28	002	23.5	25.3	4/12/2006	12:45	3.46E+02	1.79E+02	1.59E+02	9.40E-02	7.40E-01	8.06E-01	-1.44E+00	2.52E+00	2.54E+00	1.56E+00	2.24E+00	2.56E+00	NA	NA	NA	MW-43-28
	003			5/25/2006	12:10	1.20E+02	1.83E+02	1.89E+02	2.65E+00	1.89E+00	1.77E+00	-8.64E-01	9.47E+00	1.03E+01	-1.33E-01	9.42E+00	1.06E+01	NA	NA	NA	
	004			6/12/2006	12:45	2.30E+02	1.62E+02	1.52E+02	1.39E-01	4.27E-01	5.27E-01	2.85E+00	6.93E+00	7.82E+00	-7.55E-01	5.93E+00	6.39E+00	NA	NA	NA	
	005			7/12/2006	9:40	1.09E+02	1.88E+02	1.95E+02	1.10E+00	1.69E+00	1.72E+00	2.41E+00	9.87E+00	1.11E+01	-7.95E-01	8.58E+00	9.11E+00	NA	NA	NA	
	006			8/16/2006	12:10	2.60E+02	1.83E+02	1.72E+02	NA	NA	NA	5.47E-01	8.43E-01	9.56E-01	-5.16E-01	7.70E-01	8.30E-01	NA	NA	NA	
	007	23.0	25.8	6/18/2007	13:30	2.78E+02	1.70E+02	1.74E+02	1.07E+00	5.97E-01	4.86E-01	-3.68E-01	3.13E+00	3.39E+00	-3.72E-01	3.31E+00	3.46E+00	3.58E+00	1.50E+01	1.73E+01	
	008			8/13/2007	11:35	9.56E+01	1.71E+02	1.93E+02	-6.25E-01	7.50E-01	1.02E+00	-7.36E-01	3.57E+00	3.68E+00	2.77E-01	2.70E+00	3.12E+00	NA	NA	NA	
	009			1/25/2008	11:11	3.06E+02	2.82E+02	2.96E+02	1.46E-01	6.06E-01	7.38E-01	1.88E+00	2.16E+00	2.66E+00	1.46E+00	2.51E+00	3.03E+00	8.44E+00	1.76E+01	1.99E+01	
MW-43-62	002	51.0	-2.2	4/12/2006	11:55	2.00E+02	1.65E+02	1.58E+02	4.34E-01	4.63E-01	4.83E-01	3.27E+00	4.04E+00	3.73E+00	1.82E+00	3.09E+00	3.47E+00	NA	NA	NA	MW-43-62
	003			5/25/2006	12:30	1.24E+02	1.77E+02	1.82E+02	3.23E-01	1.64E+00	1.77E+00	-1.21E+00	1.26E+01	1.36E+01	-2.10E+00	9.81E+00	1.02E+01	NA	NA	NA	
	004			6/12/2006	12:40	1.29E+02	1.40E+02	1.38E+02	1.25E+00	5.58E-01	5.86E-01	4.97E+00	7.02E+00	7.98E+00	-6.81E-01	7.19E+00	7.85E+00	NA	NA	NA	
	005			7/12/2006	10:05	2.04E+01	1.53E+02	1.65E+02	4.76E-01	1.46E+00	1.54E+00	1.34E+01	1.10E+01	1.36E+01	3.73E-01	1.01E+01	1.11E+01	NA	NA	NA	
	006			8/16/2006	11:55	1.08E102	1.67E102	1.70E102	NA	NA	NA	2.23E-01	9.10E-01	1.01E100	-1.95E-01	8.33E-01	9.13E-01	NA	NA	NA	
	007	54.0	-5.2	6/19/2007	9:36	1.97E+02	1.88E+02	2.02E+02	8.55E-01	6.58E-01	6.40E-01	-6.77E-01	3.21E+00	3.42E+00	-8.52E-01	3.10E+00	3.26E+00	1.38E+00	1.33E+01	1.55E+01	
	008			8/13/2007	12:42	1.14E+02	1.73E+02	1.92E+02	1.29E-01	6.90E-01	8.27E-01	-1.18E+00	3.65E+00	3.89E+00	1.53E-01	3.31E+00	3.80E+00	NA	NA	NA	
	009			1/25/2008	10:57	1.23E+02	1.74E+02	1.93E+02	1.00E+00	6.47E-01	5.52E-01	4.31E-01	2.42E+00	2.39E+00	-1.11E+00	2.07E+00	2.10E+00	3.76E+00	1.67E+01	1.91E+01	
MW-44-66	001	62.4	31.1	3/28/2006	14:05	3.38E+02	1.91E+02	1.73E+02	7.38E-02	1.53E+00	1.67E+00	6.54E-01	1.05E+01	1.17E+01	-2.87E+00	1.02E+01	1.09E+01	NA	NA	NA	MW-44-66
	002			5/24/2006	9:05	2.37E+02	1.97E+02	1.92E+02	7.41E-01	4.11E-01	4.45E-01	-3.07E-01	8.97E+00	9.69E+00	4.85E+00	9.06E+00	1.11E+01	NA	NA	NA	
	003			7/20/2006	11:15	8.92E+02	2.27E+02	1.63E+02	7.55E-01	1.22E+00	1.31E+00	3.54E+01	1.74E+01	9.59E+00	6.24E-01	7.37E+00	8.48E+00	NA	NA	NA	
	004	63.0	30.5	6/29/2007	15:00	2.68E102	1.73E102	1.84E102	-4.25E-01	7.28E-01	9.04E-01	2.64E-01	3.03E100	3.47E100	7.78E-01	3.40E100	3.98E100	NA	NA	NA	
	005			8/14/2007	13:10	4.17E+02	1.98E+02	2.00E+02	9.30E-02	4.72E-01	5.75E-01	-8.93E-01	2.91E+00	3.08E+00	-3.39E-01	3.40E+00	3.11E+00	NA	NA	NA	
	006			10/31/2007	13:30	5.13E+02	1.82E+02	1.81E+02	3.77E-01	4.10E-01	4.21E-01	2.76E+00	4.29E+00	4.81E+00	1.91E+00	3.90E+00	4.71E+00	NA	NA	NA	
	007			1/24/2008	12:55	2.91E+02	2.00E+02	2.12E+02	2.85E-01	4.53E-01	4.99E-01	1.73E+01	4.35E+00	2.31E+00	1.40E+00	3.17E+00	2.43E+00	NA	NA	NA	
	009			7/25/2008	12:18	5.50E+02	2.55E+02	3.75E+02	3.07E-01	3.66E-01	6.17E-01	-2.33E+00	2.53E+00	3.03E+00	-2.09E-01	1.74E+00	2.85E+00	NA	NA	NA	
MW-44-102	001	91.0	2.5	6/13/2006	10:35	2.53E+02	2.01E+02	1.96E+02	3.53E-01	9.93E-01	1.26E+00	-3.22E+00	8.26E+00	8.67E+00	-7.71E-01	7.99E+00	8.52E+00	NA	NA	NA	MW-44-102
	002			7/20/2006	10:50	3.16E+02	1.82E+02	1.64E+02	-3.39E-01	1.05E+00	1.29E+00	-2.99E+00	9.39E+00	9.83E+00	-2.34E+00	9.50E+00	9.39E+00	NA	NA	NA	
	003			8/4/2006	9:40	7.61E+02	2.30E+02	1.81E+02	NA	NA	NA	-4.04E+00	8.10E+00	7.76E+00	-2.00E+00	7.01E+00	6.82E+00	NA	NA	NA	
	004			9/13/2006	11:30	2.67E+02	1.94E+02	2.00E+02	NA	NA	NA	7.19E+00	9.68E+00	1.12E+01	-4.76E-01	8.18E+00	8.99E+00	NA	NA	NA	
	005	80.0	13.5	6/19/2007	17:46	2.98E+02	1.76E+02	1.83E+02	-1.33E-01	4.81E-01	6.39E-01	1.88E+00	2.15E+00	2.63E+00	6.41E-01	2.02E+00	2.38E+00	-4.92E+00	1.31E+01	1.58E+01	
	006			8/14/2007	14:55	2.84E+02	1.89E+02	1.99E+02	1.97E-01	7.63E-01	8.99E-01	-1.45E+00	2.76E+00	2.77E+00	-1.35E+00	2.79E+00	2.73E+00	NA	NA	NA	
	007			10/31/2007	12:01	3.54E+02	1.76E+02	1.82E+02	-2.58E-01	7.75E-01	9.60E-01	-6.60E-01	2.88E+00	3.11E+00	-1.23E+00	3.60E+00	3.11E+00	NA	NA	NA	
	008			1/24/2008	13:05	4.17E+02	2.94E+02	2.96E+02	2.06E-01	5.16E-01	6.04E-01	1.18E+01	4.64E+00	3.19E+00	-4.44E-03	2.85E+00	3.11E+00	NA	NA	NA	
	010			7/25/2008	12:18	4.37E+02	2.46E+02	3.75E+02	-2.83E-02	1.83E-01	3.21E-01	-4.07E-01	1.78E+00	2.88E+00	1.35E+00	1.87E+00	3.41E+00	NA	NA	NA	
MW-45-42	001	34.4	19.2	4/4/2006	17:20	5.18E102	2.22E102	2.17E102	8.83E-01	5.94E-01	5.95E-01	1.41E101	1.35E101	1.54E101	-4.38E-02	1.22E101	1.34E101	NA	NA	NA	MW-45-42
	002			5/25/2006	9:25	1.82E+03	3.74E+02	2.45E+02	9.78E-01	1.14E+00	1.18E+00	-7.92E+00	1.21E+01	1.17E+01	-3.97E+00	1.21E+01	1.23E+01	NA	NA	NA	
	003			6/12/2006	10:45	2.27E+03	4.13E+02	2.15E+02	1.02E+00	6.80E-01	7.49E-01	9.06E-02	5.68E+00	6.29E+00	2.61E+00	5.68E+00	6.70E+00	NA	NA	NA	
	004			7/14/2006	9:30	4.19E+02	2.18E+02	2.00E+02	0.00E+00	1.45E+00	1.59E+00	1.22E+00	8.17E+00	9.27E+00	2.33E+00	9.82E+00	1.13E+01	NA	NA	NA	
	005			8/11/2006	10:00	3.16E+03	5.51E+02	2.71E+02	NA	NA	NA	-1.16E-01	1.51E+00	1.64E+00	-4.26E-01	1.40E+00	1.54E+00	NA	NA	NA	
	006			9/13/2006	11:50	4.15E+03	7.32E+02	3.27E+02	NA	NA	NA	-1.58E+00	5.85E+00	6.00E+00	-1.46E+00	5.39E+00	5.27E+00	NA	NA	NA	
	007			11/13/2006	13:20	5.25E+02	1.38E+02	1.40E+02	-7.10E-01	7.50E-01	8.50E-01	3.70E+00	5.40E+00	5.60E+00	5.00E-01	6.90E+00	8.30E+00	3.00E-01	3.60E+00	4.10E+00	
	008	37.0	16.6	6/21/2007	15:05	2.32E103	6.27E102	4.36E102	-6.08E-02	6.25E-01	7.76E-01	1.31E-01	4.14E100	4.59E100	2.51E100	2.82E100	4.08E100	3.58E100	1.30E101	1.49E101	
	009			8/15/2007	11:30	1.16E+03	1.80E+02	1.47E+02	-3.79E-01	7.74E-01	9.47E-01	1.92E+00	2.76E+00	3.41E+00	1.19E+00	2.60E+00	3.23E+00	NA	NA	NA	
	010			10/5/2007	11:05	2.22E+03	3.05E+02	1.50E+02	3.55E-01	5.10E-01	5.56E-01	0.00E+00	4.13E+00	1.99E+00	3.65E-01	1.94E+00	2.21E+00	NA	NA	NA	

See Page 21 for Notes

IPEC00201780

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS															Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-45-42	011			1/25/2008	12:15	1.44E+03	3.90E+02	2.96E+02	2.08E-01	5.15E-01	6.03E-01	1.60E+00	2.43E+00	2.88E+00	5.96E-01	2.31E+00	2.66E+00	NA	NA	NA	MW-45-42
	013			7/25/2008	16:40	2.32E+03	3.77E+02	3.74E+02	9.98E-01	3.24E-01	3.75E-01	-1.77E+00	1.76E+00	2.53E+00	1.09E+00	1.76E+00	3.19E+00	NA	NA	NA	
	013			7/25/2008	16:40	NA	NA	NA	3.02E-01	2.75E-01	4.42E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-45-61	001	57.7	-4.1	4/4/2006	17:00	2.98E+02	2.18E+02	2.23E+02	1.82E-01	5.03E-01	5.39E-01	8.62E+00	1.14E+01	1.32E+01	1.40E+00	1.02E+01	1.17E+01	NA	NA	NA	MW-45-61
	002			5/25/2006	9:10	1.71E+03	3.57E+02	2.37E+02	5.63E-01	9.81E-01	1.03E+00	7.76E-01	9.14E+00	1.02E+01	5.35E+00	1.06E+01	1.31E+01	NA	NA	NA	
	003			6/12/2006	11:00	1.02E+03	2.31E+02	1.56E+02	4.81E-01	5.85E-01	6.90E-01	-4.60E+00	6.63E+00	7.11E+00	9.35E-02	6.22E+00	7.59E+00	NA	NA	NA	
	004			7/20/2006	12:50	3.72E+02	1.88E+02	1.66E+02	0.00E+00	1.36E+00	1.59E+00	-3.98E-01	5.08E+00	5.30E+00	1.33E+00	3.96E+00	5.02E+00	NA	NA	NA	
	005			8/11/2006	9:45	1.35E+03	2.88E+02	1.91E+02	NA	NA	NA	6.43E+00	9.17E+00	1.16E+01	-8.33E-01	9.00E+00	9.75E+00	NA	NA	NA	
	006			9/13/2006	9:30	1.45E+03	3.09E+02	2.04E+02	NA	NA	NA	-6.55E+00	7.21E+00	5.92E+00	-3.06E+00	7.35E+00	6.87E+00	NA	NA	NA	
	007			11/13/2006	11:20	9.57E+02	1.44E+02	1.40E+02	1.73E+00	7.50E-01	7.60E-01	-3.00E-01	4.50E+00	5.30E+00	-3.20E+00	4.50E+00	6.30E+00	2.50E+00	6.60E+00	7.30E+00	
	008	58.0	-4.4	6/21/2007	12:55	1.47E+03	5.42E+02	4.34E+02	-7.02E-02	7.47E-01	9.67E-01	3.52E+00	4.72E+00	3.52E+00	-7.21E-01	3.56E+00	3.69E+00	3.35E+00	1.49E+01	1.71E+01	
	009			8/15/2007	11:55	1.50E+03	1.88E+02	1.41E+02	4.74E-02	7.90E-01	9.41E-01	3.33E+00	4.25E+00	4.03E+00	-6.51E-01	3.86E+00	3.59E+00	NA	NA	NA	
	010			10/5/2007	11:30	2.15E+03	3.03E+02	1.52E+02	4.87E-01	5.23E-01	5.36E-01	-1.73E-01	1.43E+00	1.56E+00	6.59E-02	1.46E+00	1.62E+00	NA	NA	NA	
	011			1/25/2008	11:55	2.66E+03	4.80E+02	2.96E+02	4.26E-01	5.76E-01	6.21E-01	2.42E+00	3.60E+00	2.52E+00	-2.05E-01	2.88E+00	3.19E+00	NA	NA	NA	
	013			7/25/2008	13:51	1.80E+03	3.46E+02	3.76E+02	2.36E-01	2.45E-01	4.05E-01	-1.88E+00	1.91E+00	2.80E+00	7.83E-01	1.91E+00	3.40E+00	NA	NA	NA	
MW-46	002	18.1	0.0	4/12/006	17:15	1.38E+03	2.81E+02	1.76E+02	6.24E-01	4.82E-01	4.89E-01	9.28E-01	2.98E+00	3.31E+00	-5.36E-01	2.67E+00	2.88E+00	NA	NA	NA	MW-46
	003			5/24/2006	12:55	9.00E+02	1.71E+03	6.33E+02	3.07E-01	6.15E-01	7.47E-01	-7.66E-02	9.87E+00	1.18E+01	5.38E+00	8.80E+00	1.21E+01	NA	NA	NA	
	003			5/24/2006	12:55	6.23E102	2.24E102	1.87E102	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	004			6/13/2006	13:10	6.79E+01	1.80E+02	1.91E+02	3.46E-01	1.04E+00	1.33E+00	2.58E+00	7.28E+00	8.29E+00	-9.79E-01	8.23E+00	8.81E+00	NA	NA	NA	
	005			7/12/2006	13:23	7.86E+02	2.36E+02	1.92E+02	5.77E-01	1.21E+00	1.23E+00	3.98E+00	9.37E+00	1.09E+01	4.49E+00	8.68E+00	1.06E+01	NA	NA	NA	
	006			8/4/2006	8:40	1.15E+03	2.75E+02	1.98E+02	NA	NA	NA	1.15E+00	5.05E+00	6.52E+00	-3.50E+00	5.84E+00	5.97E+00	NA	NA	NA	
	007			9/13/2006	13:15	1.47E+03	3.30E+02	2.19E+02	NA	NA	NA	3.73E-01	6.01E+00	6.95E+00	2.75E+00	7.27E+00	6.27E+00	NA	NA	NA	
	008	10.5	7.6	6/14/2007	13:50	3.43E+03	5.64E+02	2.95E+02	2.15E-01	4.65E-01	5.35E-01	3.08E-01	3.92E+00	4.37E+00	8.52E-02	3.65E+00	4.09E+00	-1.05E+00	1.52E+01	1.78E+01	
	009			8/1/2007	11:35	6.62E+02	3.50E+02	2.44E+02	7.89E-02	3.66E-01	4.49E-01	6.63E-01	3.52E+00	3.80E+00	6.33E-02	2.43E+00	2.77E+00	NA	NA	NA	
	010			10/22/2007	14:20	1.67E103	5.27E102	4.01E102	2.17E-01	4.72E-01	5.44E-01	4.68E-01	2.97E100	3.34E100	-7.20E-01	2.94E100	3.09E100	NA	NA	NA	
	011			1/22/2008	12:19	5.49E+02	1.74E+02	1.70E+02	5.30E-01	7.71E-01	8.47E-01	-3.99E-01	2.64E+00	2.84E+00	1.73E+00	2.61E+00	3.31E+00	NA	NA	NA	
	013			7/21/2008	16:56	7.71E+02	2.75E+02	3.77E+02	2.74E-01	3.07E-01	5.10E-01	6.05E-01	1.96E+00	3.38E+00	-1.89E+00	2.10E+00	3.09E+00	NA	NA	NA	
MW-47-56	002	53.2	17.1	4/13/2006	12:05	7.60E+02	2.22E+02	1.67E+02	2.27E+00	7.65E-01	7.30E-01	8.27E-02	5.45E+00	5.95E+00	-4.55E-01	5.30E+00	5.77E+00	NA	NA	NA	MW-47-56
	003			7/18/2006	10:13	1.54E+02	1.95E+02	1.99E+02	1.91E-01	1.47E+00	1.59E+00	3.70E+00	7.80E+00	9.34E+00	2.47E+00	1.04E+01	1.29E+01	NA	NA	NA	
	004	52.0	18.3	6/20/2007	10:07	5.29E+02	1.95E+02	1.85E+02	5.93E-01	5.25E-01	5.10E-01	0.00E+00	6.66E+00	3.37E+00	3.57E+00	3.71E+00	4.73E+00	NA	NA	NA	
	004			6/20/2007	10:07	NA	NA	NA	NA	NA	NA	0.00E+00	4.28E+00	3.79E+00	1.63E+00	3.17E+00	3.79E+00	3.81E+00	1.32E+01	1.51E+01	
	005			8/10/2007	11:00	2.70E102	1.88E102	2.02E102	5.07E-01	8.04E-01	8.91E-01	-3.84E-01	3.48E100	3.75E100	1.49E-01	2.94E100	3.37E100	NA	NA	NA	
MW-47-80	001	74.0	-3.7	4/13/2006	11:45	2.33E+03	4.28E+02	2.29E+02	2.73E+00	7.35E-01	6.53E-01	-5.82E-01	4.48E+00	5.14E+00	2.25E-01	3.91E+00	4.76E+00	NA	NA	NA	MW-47-80
	002			7/18/2006	8:51	1.87E+03	3.87E+02	2.58E+02	2.86E+00	1.43E+00	1.14E+00	1.67E+00	1.05E+01	1.19E+01	2.39E+00	9.21E+00	1.09E+01	NA	NA	NA	
	003	72.0	-1.7	6/19/2007	11:00	2.36E+03	5.94E+02	3.58E+02	3.27E+00	8.98E-01	5.28E-01	2.05E+00	3.81E+00	4.58E+00	-2.27E+00	4.82E+00	3.92E+00	4.08E-01	1.18E+01	1.38E+01	
	004			8/10/2007	12:21	3.51E+03	7.25E+02	4.52E+02	3.55E+00	1.21E+00	9.05E-01	-9.39E-02	3.21E+00	3.56E+00	-8.20E-02	3.18E+00	3.50E+00	NA	NA	NA	
MW-48-23	001	20.4	-5.0	2/8/06	10:10	1.66E+02	3.26E+02	3.42E+02	1.93E-01	5.04E-01	5.94E-01	-2.14E-01	1.04E+01	1.13E+01	1.46E+00	9.95E+00	1.12E+01	NA	NA	NA	MW-48-23
	002			4/12/06	9:58	1.24E+02	4.08E+02	4.52E+02	-1.10E-01	3.90E-01	4.40E-01	3.25E+00	9.75E+00	7.26E+00	2.49E+00	7.47E+00	6.18E+00	NA	NA	NA	
	003			4/27/06	13:42	2.38E102	1.94E102	2.03E102	-2.50E-02	4.58E-01	5.04E-01	-1.88E100	5.06E100	5.65E100	-1.19E-01	4.40E100	5.27E100	NA	NA	NA	
	004			5/22/06	10:30	7.55E+02	4.26E+02	4.46E+02	2.42E-01	2.88E-01	3.10E-01	3.22E+00	9.67E+00	7.12E+00	4.29E+00	1.29E+01	9.62E+00	NA	NA	NA	
	005			6/9/06	11:15	6.03E+01	1.39E+02	6.24E+02	3.70E-01	3.60E-01	4.00E-01	2.59E+00	7.76E+00	5.90E+00	3.25E+00	9.74E+00	7.61E+00	1.60E+01	1.53E+01	1.62E+01	
	005			6/9/06	11:15	2.95E+02	4.14E+02	4.53E+02	3.10E-01	9.88E-01	1.26E+00	1.09E+00	5.21E+00	5.80E+00	3.08E+00	5.41E+00	5.96E+00	NA	NA	NA	
	005			6/9/06	11:15	7.37E+02	2.09E+02	1.56E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	006			7/6/06	12:00	4.21E+02	4.17E+02	4.52E+02	-2.20E-01	4.20E-01	4.90E-01	2.55E+00	7.64E+00	5.49E+00	2.60E+00	7.79E+00	5.78E+00	NA	NA	NA	
	007-S1			8/8/06	10:30	1.40E+02	4.05E+02	4.47E+02	NA	NA	NA	2.41E+00	7.23E+00	5.17E+00	2.11E+00	6.34E+00	4.76E+00	NA	NA	NA	
	007			8/8/06	10:30	1.04E102	1.68E102	1.72E102	7.00E-02	6.30E-01	7.00E-01	1.93E100	4.76E100	5.56E100	1.99E100	4.41E100	5.37E100	NA	NA	NA	
	008			9/5/06	10:05	2.44E+01	1.59E+02	1.72E+02	-6.00E-02	7.80E-01	8.60E-01	-2.90E+00	7.82E+00	8.12E+00	1.05E-01	8.58E+00	1.02E+01	NA	NA	NA	
	008-S1			9/5/06	10:05	7.40E+02	4.20E+02	4.49E+02	NA	NA	NA	3.34E+00	1.00E+01	7.56E+00	3.32E+00	9.97E+00	8.01E+00	NA	NA	NA	

IPEC00201781

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS														Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)		
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-48-23	009			11/22/06	9:23	1.67E+02	4.08E+02	4.50E+02	-7.00E-02	6.30E-01	7.10E-01	3.91E+00	1.17E+01	8.71E+00	3.22E+00	9.67E+00	7.76E+00	NA	NA	NA	MW-48-23
	010	15.8	-0.4	2/9/07	10:54	2.72E+02	1.68E+02	1.70E+02	-1.60E-01	1.53E+00	1.70E+00	3.70E-01	1.80E+00	2.00E+00	8.30E-01	2.07E+00	2.30E+00	NA	NA	NA	
	011			8/16/07	11:00	3.93E+02	1.64E+02	1.61E+02	-3.94E-01	5.69E-01	8.47E-01	1.66E+00	4.92E+00	3.58E+00	5.36E-01	3.03E+00	3.55E+00	NA	NA	NA	
MW-48-37	001	36.0	-20.6	2/10/06	14:10	1.00E+01	4.26E+02	4.73E+02	NA	NA	NA	1.18E+00	3.54E+00	2.53E+00	2.07E+00	6.21E+00	4.39E+00	NA	NA	NA	MW-48-37
	002			4/12/06	10:00	-5.40E+01	4.02E+02	4.52E+02	2.10E-01	3.90E-01	4.30E-01	1.70E+00	5.09E+00	3.53E+00	3.34E+00	1.00E+01	6.89E+00	NA	NA	NA	
	003			4/27/06	13:20	-2.15E+02	1.77E+02	2.04E+02	-4.96E-02	3.79E-01	4.20E-01	7.95E+00	9.91E+00	1.01E+01	-3.17E-01	8.42E+00	9.20E+00	NA	NA	NA	
MW-48-37	004			5/22/06	10:00	1.39E+02	4.02E+02	4.46E+02	-1.20E-01	3.60E-01	4.10E-01	1.35E+00	4.05E+00	2.94E+00	2.31E+00	6.94E+00	5.00E+00	NA	NA	NA	
	005			6/9/06	11:30	1.66E+02	4.11E+02	4.53E+02	2.08E+00	4.50E-01	4.00E-01	2.40E+00	7.20E+00	4.95E+00	4.14E+00	1.24E+01	8.50E+00	4.58E+00	1.35E+01	1.46E+01	
	005			6/9/06	11:30	5.96E+02	1.38E+03	6.24E+02	1.05E-01	7.89E-01	1.03E+00	1.50E+00	5.71E+00	6.44E+00	-1.58E+00	5.25E+00	5.52E+00	NA	NA	NA	
	005			6/9/06	11:30	1.43E+02	1.67E+02	1.66E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	006			7/6/06	8:45	1.47E+02	4.08E+02	4.52E+02	1.70E-01	8.10E-01	8.80E-01	2.10E+00	6.31E+00	4.44E+00	4.21E+00	1.26E+01	8.77E+00	NA	NA	NA	
	007-S1			8/8/06	10:20	1.27E+02	4.08E+02	4.47E+02	NA	NA	NA	3.40E+00	1.02E+01	6.97E+00	5.94E+00	1.78E+01	1.22E+01	NA	NA	NA	
	007			8/8/06	10:20	1.09E+01	1.55E+02	1.69E+02	6.00E-02	6.90E-01	7.80E-01	1.86E+00	5.68E+00	6.65E+00	2.95E-01	5.29E+00	5.93E+00	NA	NA	NA	
	008			9/5/06	10:20	5.73E+02	2.12E+02	1.75E+02	0.00E+00	6.90E-01	7.70E-01	-2.86E-01	5.59E+00	6.04E+00	1.60E+00	5.35E+00	6.37E+00	NA	NA	NA	
	008-S1			9/5/06	10:20	2.00E+02	3.99E+02	4.47E+02	NA	NA	NA	1.94E+00	5.82E+00	4.05E+00	3.21E+00	9.62E+00	6.66E+00	NA	NA	NA	
	009			11/22/06	9:34	2.62E+02	4.11E+02	4.50E+02	0.00E+00	6.30E-01	7.00E-01	1.60E+00	4.80E+00	3.39E+00	3.58E+00	1.07E+01	7.47E+00	NA	NA	NA	
	010			2/9/07	10:59	2.70E+01	1.65E+02	1.70E+02	-1.40E-01	1.38E+00	1.50E+00	-6.10E-01	1.26E+00	1.50E+00	-4.70E-01	1.38E+00	1.60E+00	NA	NA	NA	
	011	35.8	-20.4	8/16/07	11:07	1.29E102	1.59E102	1.75E102	4.11E-02	6.27E-01	7.94E-01	1.78E100	4.35E100	4.53E100	-4.00E-01	4.51E100	5.01E100	NA	NA	NA	
MW-49-26	001	19.1	-4.4	3/22/2006	16:50	1.54E+04	2.81E+03	1.82E+03	1.84E+01	9.96E-01	4.29E-01	-5.28E-01	9.40E+00	1.02E+01	-1.35E+00	8.98E+00	9.69E+00	NA	NA	NA	MW-49-26
	003			5/19/2006	14:55	9.40E+03	1.50E+03	4.96E+02	9.03E+00	9.40E-01	5.45E-01	2.65E+00	7.87E+00	9.09E+00	1.15E+00	5.99E+00	6.92E+00	NA	NA	NA	
	003			5/19/2006	14:55	1.42E+04	6.75E+03	6.29E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	004			6/6/2006	9:55	1.40E+04	2.16E+03	4.95E+02	1.41E+01	1.17E+00	5.80E-01	6.14E+00	1.18E+01	1.41E+01	2.42E+00	1.02E+01	1.21E+01	NA	NA	NA	
	005			7/7/2006	9:15	1.00E+04	2.06E+03	1.51E+03	1.26E+01	2.67E+00	1.51E+00	1.38E+00	8.45E+00	9.49E+00	-1.98E+00	8.42E+00	8.90E+00	NA	NA	NA	
	006			8/1/2006	9:28	1.37E+04	1.13E+03	6.16E+02	NA	NA	NA	-5.93E+00	6.06E+00	4.56E+00	-3.09E+00	5.14E+00	4.31E+00	3.67E+01	3.09E+01	3.26E+01	
	007			8/28/2006	12:30	1.10E104	1.12E103	7.68E102	NA	NA	NA	-2.69E100	5.42E100	5.50E100	-3.57E100	4.78E100	3.71E100	NA	NA	NA	
	008			11/15/2006	11:28	6.39E+03	1.38E+03	1.00E+03	1.55E+01	1.95E+00	7.70E-01	8.00E-01	3.00E+00	3.40E+00	-3.00E-01	4.20E+00	5.00E+00	8.40E+00	2.04E+01	2.20E+01	
	009	20.0	-5.3	6/26/2007	12:30	7.76E+03	3.48E+02	1.79E+02	1.27E+01	1.40E+00	7.13E-01	1.36E+00	2.55E+00	2.83E+00	-8.28E-01	2.23E+00	2.31E+00	-1.92E+00	1.28E+01	1.50E+01	
	010			8/9/2007	11:17	6.72E+03	9.50E+02	4.62E+02	1.43E+01	2.16E+00	9.06E-01	4.09E-01	3.72E+00	4.23E+00	2.50E+00	3.51E+00	4.54E+00	7.93E-01	2.07E+01	2.42E+01	
	011			1/28/2008	16:28	4.21E+03	5.76E+02	2.98E+02	2.29E+01	2.40E+00	8.52E-01	-1.19E+00	1.95E+00	2.07E+00	4.31E-01	1.97E+00	2.29E+00	5.16E+00	1.53E+01	1.75E+01	
	013			7/30/2008	15:03	3.96E+03	1.73E+02	1.30E+02	1.62E+01	1.27E+00	8.36E-01	-9.75E-01	1.74E+00	2.74E+00	1.31E+00	2.17E+00	3.93E+00	-2.81E+00	1.64E+01	2.92E+01	
MW-49-42	001	38.1	-23.4	3/22/2006	16:45	1.13E+04	2.55E+03	1.83E+03	1.94E+01	1.04E+00	4.30E-01	3.30E+00	1.19E+01	1.32E+01	-4.57E+00	1.11E+01	1.14E+01	NA	NA	NA	MW-49-42
	003			5/19/2006	15:07	9.39E+03	1.49E+03	4.90E+02	1.20E+01	9.57E-01	4.54E-01	2.16E+00	1.39E+01	1.56E+01	3.96E+00	1.40E+01	1.63E+01	NA	NA	NA	
	003			5/19/2006	15:07	8.83E+03	5.33E+03	6.29E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	004			6/6/2006	10:10	8.28E+03	1.32E+03	3.86E+02	1.63E+01	1.27E+00	5.67E-01	2.88E+00	1.37E+01	1.58E+01	-1.26E+00	1.07E+01	1.13E+01	NA	NA	NA	
	005			7/7/2006	9:15	5.85E+03	1.82E+03	1.52E+03	1.92E+01	3.23E+00	1.49E+00	2.01E+00	1.14E+01	1.30E+01	-1.61E+00	1.06E+01	1.11E+01	NA	NA	NA	
	006			8/1/2006	9:40	8.80E+03	9.68E+02	6.16E+02	NA	NA	NA	-4.22E+00	9.33E+00	8.64E+00	-1.94E+00	8.78E+00	8.99E+00	8.06E+00	9.86E+00	1.05E+01	
	007			8/28/2006	12:40	8.69E+03	9.57E+02	6.10E+02	NA	NA	NA	-8.31E-02	1.05E+01	1.16E+01	-6.74E+00	9.40E+00	6.18E+00	NA	NA	NA	
	008			11/15/2006	14:21	6.19E+03	1.38E+03	1.00E+03	2.11E+01	2.46E+00	8.10E-01	-6.60E-01	2.25E+00	2.60E+00	1.18E+00	2.34E+00	2.60E+00	2.60E+00	5.70E+00	6.20E+00	MW-49-42
	009	37.0	-22.3	6/26/2007	12:30	4.44E103	2.90E102	1.86E102	2.08E101	1.65E100	6.22E-01	-3.62E-01	4.56E100	4.32E100	-2.09E100	3.66E100	3.54E100	-5.19E100	1.30E101	1.54E101	
	010			8/9/2007	12:05	4.30E+03	7.91E+02	4.59E+02	2.56E+01	2.77E+00	8.29E-01	-1.17E+00	3.27E+00	3.37E+00	2.77E+00	3.52E+00	4.56E+00	4.03E-01	2.10E+01	2.46E+01	
	011			1/28/2008	15:49	2.81E+03	4.92E+02	2.98E+02	2.94E+01	2.57E+00	5.58E-01	8.68E-01	2.10E+00	2.43E+00	8.96E-01	2.13E+00	2.52E+00	5.79E+00	1.73E+01	1.97E+01	
	013			7/30/2008	15:06	2.52E+03	1.45E+02	1.30E+02	2.16E+01	1.41E+00	6.09E-01	4.49E-01	1.59E+00	2.79E+00	7.96E-01	1.70E+00	3.09E+00	-2.73E+00	1.59E+01	2.84E+01	
MW-49-65	001	60.0	-45.4	3/22/2006	16:55	5.43E+03	2.13E+03	1.82E+03	1.85E+01	1.01E+00	4.13E-01	1.36E+00	1.43E+01	1.72E+01	5.51E+00	1.37E+01	1.81E+01	NA	NA	NA	MW-49-65
	003			5/19/2006	15:55	5.70E+03	9.38E+02	3.84E+02	1.13E+01	8.98E-01	4.28E-01	-2.86E+00	8.51E+00	8.67E+00	-1.43E-01	9.39E+00	1.03E+01	NA	NA	NA	
	003			5/19/2006	15:55	5.75E+03	4.30E+03	6.29E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	004			6/6/2006	10:40	4.32E103	7.20E102	2.88E102	1.72E101	1.30E100	6.17E-01	4.52E100	1.41E101	1.63E101	4.24E100	1.28E101	1.52E101	NA	NA	NA	
	005			7/7/2006	9:10	4.63E+03	1.73E+03	1.52E+03	1.56E+01	3.24E+00	1.86E+00	-2.76E+00	6.49E+00	6.88E+00	1.84E+00	6.45E+00	7.36E+00	NA	NA	NA	
	006			8/1/2006	10:00	5.76E+03	8.48E+02	6.14E+02	NA	NA	NA	-1.20E+00	6.84E+00	7.48E+00	-6.55E-01	8.18E+00	9.78E+00	5.75E+00	1.06E+01	1.15E+01	

IPEC00201782

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS															Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-49-65	007			8/28/2006	12:35	5.54E+03	8.40E+02	6.16E+02	NA	NA	NA	-4.07E+00	9.28E+00	9.08E+00	-1.27E+00	7.42E+00	7.60E+00	NA	NA	NA	MW-49-65
	008			11/15/2006	13:46	3.04E+03	1.20E+03	1.00E+03	1.92E+01	2.31E+00	8.40E-01	2.12E+00	2.61E+00	2.80E+00	3.00E-01	2.07E+00	2.40E+00	-1.80E+00	6.90E+00	7.70E+00	
	009	61.0	-46.4	6/26/2007	12:30	2.62E+03	2.45E+02	1.85E+02	1.58E+01	1.58E+00	8.28E-01	-1.36E-03	3.06E+00	3.38E+00	-3.59E+00	4.30E+00	2.75E+00	-7.43E+00	1.41E+01	1.68E+01	
	010			8/9/2007	11:20	2.41E+03	6.42E+02	4.60E+02	2.08E+01	2.40E+00	9.11E-01	3.44E-01	2.76E+00	3.13E+00	1.65E+00	3.03E+00	3.73E+00	3.50E+00	2.14E+01	2.49E+01	
	011			1/28/2008	16:52	1.85E+03	4.22E+02	2.95E+02	2.73E+01	2.79E+00	6.29E-01	2.83E+00	3.72E+00	3.81E+00	-1.63E+00	3.17E+00	3.09E+00	1.01E+01	1.95E+01	2.20E+01	
	013			7/30/2008	13:58	1.56E+03	1.23E+02	1.30E+02	1.78E+01	1.29E+00	5.51E-01	-4.77E-01	2.20E+00	3.63E+00	8.42E-02	2.02E+00	3.39E+00	-6.53E+00	1.67E+01	2.96E+01	
MW-50-42	001	42.0	-27.1	3/22/2006	14:25	9.75E+03	5.78E+02	2.14E+02	1.93E+01	1.12E+00	4.76E-01	-1.36E+00	9.90E+00	1.13E+01	-5.74E-01	8.55E+00	1.02E+01	4.01E+00	1.34E+01	1.46E+01	MW-50-42
	003			5/19/2006	13:55	4.59E+03	7.74E+02	3.53E+02	1.95E+01	1.25E+00	4.77E-01	4.84E+00	8.95E+00	1.18E+01	-4.07E-01	8.17E+00	1.02E+01	NA	NA	NA	
	003			5/19/2006	13:55	4.58E+03	3.84E+03	6.30E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	004			6/7/2006	9:00	1.79E+02	1.89E+02	1.56E+02	3.94E+00	7.62E-01	6.06E-01	1.15E-01	7.81E+00	8.62E+00	-1.70E+00	7.37E+00	7.69E+00	NA	NA	NA	
	005			7/3/2006	11:35	3.98E+02	2.18E+02	2.02E+02	3.45E+00	2.00E+00	1.65E+00	6.90E+00	1.38E+01	1.65E+01	4.75E+00	1.04E+01	1.30E+01	NA	NA	NA	
	006			8/1/2006	11:20	1.41E+03	6.42E+02	6.14E+02	NA	NA	NA	8.99E+00	1.01E+01	1.33E+01	6.21E+00	9.26E+00	1.24E+01	1.12E+01	1.53E+01	1.64E+01	
	007			8/28/2006	11:50	3.11E+02	1.89E+02	1.76E+02	NA	NA	NA	1.97E+00	5.84E+00	6.74E+00	3.49E+00	6.36E+00	7.93E+00	NA	NA	NA	
	008			11/15/2006	11:50	1.70E+03	1.11E+03	1.00E+03	1.13E+01	1.56E+00	8.30E-01	7.20E+00	4.20E+00	4.30E+00	-9.00E-01	3.00E+00	3.80E+00	-1.20E+00	6.00E+00	6.70E+00	
	009	27.0	-12.1	6/26/2007	14:30	2.15E+02	1.71E+02	1.86E+02	1.16E+01	1.35E+00	7.64E-01	1.91E+00	4.44E+00	5.12E+00	-1.64E+00	4.29E+00	3.94E+00	-6.30E+00	1.84E+01	2.19E+01	
	010			7/26/2007	11:20	1.45E+02	1.74E+02	1.93E+02	1.94E+01	1.81E+00	5.31E-01	-5.50E+00	4.71E+00	3.68E+00	2.53E+00	3.39E+00	4.32E+00	4.92E+00	1.91E+01	2.19E+01	
	011			10/18/2007	14:08	1.01E+02	1.76E+02	1.97E+02	2.45E+01	2.52E+00	5.74E-01	3.02E-01	3.38E+00	3.87E+00	6.26E-01	3.75E+00	3.81E+00	-9.14E-01	1.62E+01	1.87E+01	
	012			1/15/2008	11:59	9.48E102	4.79E102	4.16E102	2.93E100	1.20E100	8.57E-01	1.63E101	5.79E100	3.39E100	-4.30E-01	3.47E100	3.78E100	1.24E101	2.42E101	2.72E101	
	013			2/26/2008	12:19	6.13E+02	2.94E+02	2.87E+02	2.40E+00	8.61E-01	7.34E-01	-1.95E+00	4.80E+00	4.66E+00	1.77E+00	3.90E+00	4.68E+00	1.71E+01	2.40E+01	2.67E+01	
	014			7/31/2008	15:43	3.73E+02	1.34E+02	1.91E+02	9.28E+00	8.66E-01	4.39E-01	-9.40E-01	1.99E+00	3.20E+00	9.53E-01	1.91E+00	3.44E+00	1.58E+01	1.76E+01	2.96E+01	
MW-50-66	001	67.0	-52.1	3/22/2006	14:50	6.81E+03	4.94E+02	2.13E+02	2.55E+01	1.21E+00	4.90E-01	-7.67E+00	1.60E+01	1.66E+01	-2.18E+00	1.68E+01	1.81E+01	5.33E+00	1.35E+01	1.47E+01	MW-50-66
	003			5/19/2006	15:20	1.08E+04	5.90E+03	6.30E+02	NA	NA	NA	3.23E+00	1.06E+01	1.23E+01	7.78E-01	1.12E+01	1.25E+01	NA	NA	NA	
	003			5/19/2006	15:20	9.61E+03	1.52E+03	4.94E+02	1.95E+01	1.22E+00	5.16E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	004			6/7/2006	9:20	1.05E+04	1.65E+03	4.29E+02	1.98E+01	1.18E+00	4.66E-01	-1.97E+00	8.71E+00	9.38E+00	2.49E+00	8.98E+00	1.04E+01	NA	NA	NA	
	005			7/3/2006	11:00	8.62E103	2.00E103	1.52E103	2.53E101	3.79E100	1.67E100	-2.04E100	9.54E100	1.02E101	4.40E-01	8.34E100	9.23E100	NA	NA	NA	
	006			8/1/2006	9:28	7.93E+03	9.36E+02	6.16E+02	NA	NA	NA	5.59E-01	5.98E+00	6.68E+00	-4.31E+00	6.18E+00	5.00E+00	1.06E+01	1.06E+01	1.13E+01	
	007			8/28/2006	12:05	6.77E+03	1.59E+03	1.30E+03	NA	NA	NA	7.66E-02	4.67E+00	5.86E+00	1.31E+00	4.23E+00	5.88E+00	NA	NA	NA	
	008			11/15/2006	10:37	5.05E+03	1.32E+03	1.00E+03	2.15E+01	2.34E+00	8.10E-01	2.00E-01	3.30E+00	3.70E+00	2.60E+00	3.30E+00	3.50E+00	1.50E+00	5.70E+00	6.30E+00	
	009	60.0	-45.1	6/26/2007	14:02	4.21E+03	2.85E+02	1.86E+02	2.93E+01	1.86E+00	5.25E-01	-2.19E+00	2.64E+00	2.49E+00	1.63E-01	2.36E+00	2.74E+00	-6.05E-01	1.50E+01	1.74E+01	
	010			7/26/2007	11:25	4.50E+03	3.39E+02	2.04E+02	3.10E+01	2.50E+00	5.78E-01	-1.12E+00	4.54E+00	4.18E+00	1.08E-02	3.46E+00	3.94E+00	1.93E+01	1.86E+01	2.02E+01	
	011			10/18/2007	14:38	3.85E+03	6.53E+02	3.62E+02	4.74E+01	3.72E+00	7.97E-01	-2.28E+00	4.61E+00	4.36E+00	1.65E+00	4.20E+00	4.96E+00	-3.71E+00	1.58E+01	1.83E+01	
	012			1/15/2008	12:10	3.31E+03	7.20E+02	4.11E+02	3.56E+01	3.59E+00	7.13E-01	1.56E+01	5.00E+00	3.45E+00	6.31E-02	2.85E+00	3.18E+00	1.16E+01	2.25E+01	2.55E+01	
	013			2/26/2008	13:46	3.74E+03	7.98E+02	5.31E+02	3.58E+01	2.36E+00	7.40E-01	7.87E-01	2.69E+00	3.18E+00	2.54E-01	2.54E+00	2.96E+00	4.87E+00	1.86E+01	2.12E+01	
	015			5/12/2008	15:40	2.80E+03	2.39E+02	1.44E+02	3.38E+01	1.85E+00	7.01E-01	7.08E-01	2.21E+00	3.87E+00	1.23E+00	2.13E+00	3.83E+00	7.86E+00	1.28E+01	2.17E+01	
	016			7/31/2008	17:02	2.71E+03	2.48E+02	1.91E+02	3.30E+01	1.59E+00	4.02E-01	2.31E+00	1.82E+00	3.43E+00	6.64E-01	1.46E+00	2.68E+00	3.58E+00	1.40E+01	2.43E+01	
	017			9/8/2008	16:21	2.08E+03	4.17E+02	5.04E+02	3.23E+01	1.66E+00	4.88E-01	-8.81E-01	2.69E+00	3.96E+00	NA	NA	NA	1.22E+01	1.23E+01	2.06E+01	
MW-51-40	001	39.7	28.0	5/30/2007	11:45	1.98E+02	1.65E+02	1.68E+02	-5.30E-01	6.73E-01	9.82E-01	1.04E-01	3.48E+00	3.77E+00	1.61E+00	3.23E+00	3.77E+00	NA	NA	NA	MW-51-40
	002			7/24/2007	15:30	2.23E+02	1.59E+02	1.60E+02	7.09E-02	4.71E-01	5.38E-01	1.65E-02	3.39E+00	3.85E+00	-1.32E+00	4.02E+00	4.13E+00	NA	NA	NA	
	003			10/2/2007	13:48	1.34E102	1.77E102	1.96E102	-2.63E-01	3.09E-01	3.73E-01	5.15E100	4.05E100	3.08E100	7.44E-01	1.85E100	2.55E100	NA	NA	NA	
	004			11/9/2007	15:40	1.47E+02	1.55E+02	1.70E+02	-8.16E-02	3.87E-01	4.52E-01	1.68E+00	2.96E+00	3.52E+00	-5.71E-02	3.15E+00	3.49E+00	NA	NA	NA	
	005			1/8/2008	10:47	5.86E+01	1.56E+02	1.79E+02	1.57E-01	6.77E-01	8.32E-01	1.83E-02	2.66E+00	2.93E+00	7.71E-01	2.75E+00	2.87E+00	NA	NA	NA	
	007			5/30/2008	10:27	1.41E+02	1.01E+02	1.60E+02	3.71E-01	5.67E-01	9.67E-01	3.19E-01	2.03E+00	3.41E+00	2.18E+00	2.36E+00	3.50E+00	NA	NA	NA	
	008			8/8/2008	14:40	3.29E+02	1.60E+02	2.03E+02	3.74E-01	4.02E-01	6.70E-01	1.59E+00	2.19E+00	3.98E+00	-1.99E-01	1.79E+00	2.99E+00	-8.33E+00	1.02E+01	1.83E+01	
MW-51-79	001	78.7	-11.0	5/30/2007	12:42	9.89E+01	1.55E+02	1.72E+02	-2.36E-01	6.98E-01	9.58E-01	2.20E+00	3.63E+00	3.90E+00	3.52E-01	3.31E+00	3.76E+00	NA	NA	NA	MW-51-79
	002			7/24/2007	17:00	4.24E+01	1.43E+02	1.67E+02	8.02E-03	5.35E-01	6.15E-01	-6.37E-01	3.88E+00	4.21E+00	-2.83E-01	4.51E+00	4.93E+00	NA	NA	NA	
	003			10/2/2007	13:54	-2.51E101	1.65E102	1.94E102	6.94E-02	2.85E-01	3.27E-01	5.37E100	5.07E100	3.26E100	1.84E100	2.82E100	3.27E100	NA	NA	NA	
	004			11/9/2007	16:18	5.00E+01	1.50E+02	1.71E+02	-4.97E-02	2.99E-01	3.52E-01	2.66E+00	2.97E+00	3.56E+00	-2.43E-01	4.02E+00	4.45E+00	NA	NA	NA	
	005			1/8/2008	10:08	9.26E+01	1.59E+02	1.79E+02	-4.64E-01	7.01E-01	9.74E-01	-7.91E-01	2.22E+00	2.42E+00	2.58E-01	2.37E+00	2.70E+00	NA	NA	NA	

IPEC00201783

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS															Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-51-79	007			5/30/2008	10:55	6.70E+01	9.41E+01	1.61E+02	2.46E-02	4.94E-01	9.94E-01	-1.14E+00	3.43E+00	4.80E+00	-5.13E-01	2.70E+00	4.31E+00	NA	NA	NA	MW-51-79
	008			8/8/2008	12:55	1.61E+02	1.31E+02	2.01E+02	2.03E-01	2.99E-01	5.18E-01	9.63E-01	2.17E+00	3.82E+00	5.64E-01	2.30E+00	3.98E+00	-1.07E+01	1.07E+01	1.93E+01	
MW-51-104	001	103.7	-36.0	5/30/2007	11:05	5.71E+01	1.48E+02	1.71E+02	-6.74E-02	7.59E-01	9.90E-01	1.25E+00	3.27E+00	3.35E+00	7.70E-02	3.25E+00	3.62E+00	NA	NA	NA	MW-51-104
	002			7/24/2007	17:06	9.07E+01	1.47E+02	1.64E+02	3.62E-01	4.86E-01	5.41E-01	-4.20E+00	4.62E+00	3.92E+00	1.42E+00	4.44E+00	5.33E+00	NA	NA	NA	
	003			10/2/2007	11:45	3.67E+01	1.68E+02	1.94E+02	4.21E-02	4.45E-01	5.08E-01	5.71E+00	5.87E+00	4.25E+00	-8.32E-01	4.11E+00	3.68E+00	NA	NA	NA	
	004			11/9/2007	14:35	5.17E+01	1.50E+02	1.70E+02	-2.40E-01	3.18E-01	3.86E-01	-1.26E+00	2.85E+00	2.92E+00	1.15E+00	2.61E+00	3.18E+00	NA	NA	NA	
	005			1/8/2008	12:15	-4.84E+00	1.45E+02	1.78E+02	-6.19E-02	7.22E-01	9.34E-01	-9.37E-01	2.09E+00	2.26E+00	-3.84E-01	2.54E+00	2.50E+00	NA	NA	NA	
	006			8/8/2008	10:50	2.82E+02	1.55E+02	2.08E+02	-2.66E-01	4.00E-01	7.92E-01	1.56E+00	2.03E+00	3.60E+00	-1.21E-01	2.07E+00	3.38E+00	-4.19E+00	1.34E+01	2.36E+01	
MW-51-135	001	135.2	-67.5	5/30/2007	13:00	8.24E+01	1.50E+02	1.70E+02	-4.68E-01	5.53E-01	8.40E-01	-4.01E-01	3.62E+00	4.03E+00	2.56E+00	3.84E+00	4.48E+00	NA	NA	NA	MW-51-135
	002			7/24/2007	12:40	9.51E+01	1.43E+02	1.59E+02	5.33E-02	5.04E-01	5.76E-01	-4.56E-01	4.07E+00	4.36E+00	3.42E-01	3.30E+00	3.84E+00	NA	NA	NA	
	003			10/2/2007	12:05	3.04E+01	1.71E+02	1.96E+02	-3.08E-02	4.26E-01	5.49E-01	2.16E+01	5.76E+00	2.86E+00	5.46E-01	2.50E+00	2.92E+00	NA	NA	NA	
	004			11/9/2007	11:55	9.83E+01	1.53E+02	1.72E+02	-2.42E-01	2.54E-01	3.18E-01	-7.27E-01	3.46E+00	3.70E+00	-3.14E-01	3.29E+00	3.66E+00	NA	NA	NA	
	005			1/8/2008	13:20	4.91E+01	1.55E+02	1.80E+02	3.47E-02	7.04E-01	8.79E-01	6.30E-02	1.88E+00	2.09E+00	1.43E-02	1.71E+00	1.90E+00	NA	NA	NA	
	006			8/8/2008	11:50	2.09E+02	1.39E+02	1.99E+02	5.09E-02	2.40E-01	4.57E-01	-1.03E+00	2.08E+00	3.29E+00	1.01E-02	2.01E+00	3.34E+00	-6.78E+00	1.14E+01	2.02E+01	
MW-51-163	001	162.7	-95.0	5/30/2007	14:40	1.18E+02	1.56E+02	1.69E+02	3.29E-01	1.16E+00	1.36E+00	-2.81E-01	3.09E+00	3.45E+00	1.77E-01	2.82E+00	3.20E+00	NA	NA	NA	MW-51-163
	002			7/24/2007	14:05	4.98E+01	1.44E+02	1.66E+02	1.05E-01	4.58E-01	5.21E-01	-2.43E-01	3.44E+00	3.78E+00	8.64E-02	3.25E+00	3.63E+00	NA	NA	NA	
	003			10/2/2007	13:35	4.23E+01	1.71E+02	1.96E+02	8.07E-02	3.20E-01	3.64E-01	1.16E+01	7.20E+00	4.49E+00	2.11E+00	4.02E+00	4.89E+00	NA	NA	NA	
	004			11/9/2007	13:32	7.30E101	1.52E102	1.71E102	2.08E-01	2.82E-01	3.12E-01	1.41E-01	3.54E100	3.51E100	-1.11E100	3.01E100	3.11E100	NA	NA	NA	
	005			1/8/2008	13:57	-1.99E+01	1.47E+02	1.82E+02	4.40E-01	8.22E-01	9.29E-01	-1.74E+00	2.66E+00	2.46E+00	8.69E-02	2.15E+00	2.44E+00	NA	NA	NA	
	006			8/8/2008	11:16	6.92E+01	8.27E+01	1.40E+02	-1.22E-01	2.63E-01	5.44E-01	-1.54E+00	2.25E+00	3.56E+00	3.78E-01	1.97E+00	3.39E+00	4.33E+00	1.26E+01	2.15E+01	
MW-51-189	001	189.2	-121.5	5/30/2007	14:00	1.87E+02	1.67E+02	1.71E+02	-2.88E-02	8.90E-01	1.11E+00	-3.62E-02	3.98E+00	3.82E+00	4.56E+00	3.57E+00	4.63E+00	NA	NA	NA	MW-51-189
	002			7/24/2007	13:15	9.49E+01	1.46E+02	1.63E+02	3.93E-01	4.08E-01	4.48E-01	-8.87E-01	4.11E+00	3.58E+00	1.57E+00	4.02E+00	4.31E+00	NA	NA	NA	
	003			10/2/2007	12:20	8.45E+00	1.70E+02	1.96E+02	-5.06E-02	2.16E-01	2.58E-01	1.38E+01	5.45E+00	2.92E+00	-4.14E-01	2.79E+00	3.04E+00	NA	NA	NA	
	004			11/9/2007	13:05	-6.26E+00	1.48E+02	1.71E+02	1.93E-01	3.61E-01	4.08E-01	3.04E+00	3.27E+00	4.07E+00	-8.07E-02	3.65E+00	4.05E+00	NA	NA	NA	
	005			1/8/2008	13:10	-4.82E100	1.44E102	1.77E102	-3.17E-02	7.01E-01	8.92E-01	1.35E100	2.13E100	2.49E100	1.42E100	1.98E100	2.41E100	NA	NA	NA	
	006			8/8/2008	11:17	1.10E+02	8.97E+01	1.43E+02	-1.43E-01	3.38E-01	6.60E-01	-2.27E+00	2.13E+00	3.12E+00	-1.79E+00	2.70E+00	3.57E+00	-5.89E+00	1.15E+01	2.04E+01	
MW-52-11	001	10.0	6.8	6/20/2007	12:35	1.47E+02	1.68E+02	1.84E+02	-3.58E-01	6.33E-01	8.33E-01	1.95E+00	2.54E+00	2.99E+00	6.12E-01	2.29E+00	2.65E+00	-4.56E+00	1.28E+01	1.54E+01	MW-52-11
	002			8/6/2007	16:18	7.71E+01	1.73E+02	1.94E+02	-5.43E-01	6.12E-01	9.38E-01	-2.16E+00	3.42E+00	3.23E+00	3.39E-02	2.79E+00	3.12E+00	NA	NA	NA	
MW-52-18	001	17.5	-2.6	5/24/2007	10:44	1.62E+02	1.52E+02	1.65E+02	-2.20E-01	4.98E-01	7.30E-01	6.53E-01	3.19E+00	3.74E+00	3.13E+00	3.30E+00	4.22E+00	-1.09E+00	9.82E+00	1.14E+01	MW-52-18
	002			8/6/2007	13:45	6.73E+01	1.74E+02	1.96E+02	-7.91E-02	6.92E-01	8.93E-01	-1.43E+00	3.54E+00	3.67E+00	1.11E-01	3.15E+00	3.54E+00	NA	NA	NA	
MW-52-48	001	48.0	-33.1	5/24/2007	11:35	7.02E+01	1.48E+02	1.67E+02	-3.61E-01	7.44E-01	1.01E+00	3.66E-01	2.94E+00	3.39E+00	-9.91E-01	3.03E+00	3.11E+00	-2.74E+00	8.16E+00	9.55E+00	MW-52-48
	002			8/6/2007	14:00	1.15E+02	1.76E+02	1.96E+02	-5.59E-01	4.83E-01	7.33E-01	7.85E-01	3.24E+00	3.75E+00	4.31E-01	3.29E+00	3.75E+00	NA	NA	NA	
MW-52-64	001	64.0	-49.1	5/24/2007	14:44	3.82E+00	1.70E+02	1.98E+02	-3.20E-01	7.68E-01	9.77E-01	-1.03E+00	3.25E+00	3.45E+00	8.00E-01	3.54E+00	4.11E+00	-2.85E+00	9.12E+00	1.07E+01	MW-52-64
	002			8/6/2007	15:50	3.72E+01	1.71E+02	1.96E+02	-1.70E-02	7.22E-01	9.23E-01	5.10E-01	3.50E+00	3.68E+00	1.80E+00	6.08E+00	4.12E+00	NA	NA	NA	
MW-52-122	001	122.0	-107.1	5/24/2007	14:55	6.78E+01	1.47E+02	1.66E+02	-4.24E-01	6.62E-01	9.64E-01	2.52E+00	3.59E+00	3.62E+00	-1.76E+00	3.38E+00	3.29E+00	-1.94E+00	9.68E+00	1.13E+01	MW-52-122
	002			8/6/2007	12:05	4.42E+01	1.71E+02	1.96E+02	-4.19E-01	7.10E-01	9.60E-01	1.99E+00	4.09E+00	4.34E+00	2.10E-01	4.13E+00	4.70E+00	NA	NA	NA	
MW-52-162	001	161.5	-146.6	5/24/2007	11:55	2.82E+02	1.95E+02	2.03E+02	-5.15E-01	4.87E-01	8.12E-01	-5.80E-01	3.59E+00	3.29E+00	1.59E+00	3.15E+00	3.88E+00	-7.54E-01	9.75E+00	1.13E+01	MW-52-162
	002			8/6/2007	11:30	2.11E+02	1.80E+02	1.95E+02	1.53E-02	4.79E-01	6.03E-01	3.61E-02	3.44E+00	3.77E+00	-3.73E-02	3.12E+00	3.52E+00	NA	NA	NA	
MW-52-181	001	181.0	-166.1	5/24/2007	12:06	2.48E102	1.94E102	2.04E102	-3.19E-01	5.07E-01	7.58E-01	-5.99E-01	3.30E100	3.52E100	-2.81E-01	3.74E100	4.19E100	-2.23E-01	1.01E101	1.17E101	MW-52-181
	002			8/6/2007	11:40	1.19E+02	1.77E+02	1.97E+02	5.84E-02	5.56E-01	6.77E-01	-1.21E+00	2.87E+00	2.97E+00	1.28E+00	2.96E+00	3.57E+00	NA	NA	NA	
MW-53-82	001	72.7	-2.4	8/23/2006	12:50	1.18E+04	1.85E+03	5.02E+02	6.68E+00	3.10E+00	2.74E+00	-3.52E+00	7.20E+00	6.64E+00	1.30E+00	1.02E+01	1.16E+01	4.44E+00	9.39E+00	1.02E+01	MW-53-82
	001			8/23/2006	12:50	1.32E+04	1.11E+03	6.12E+02	NA	NA	NA	9.35E-01	5.78E+00	6.37E+00	1.36E+00	5.70E+00	6.30E+00	NA	NA	NA	
	002			11/9/2006	11:15	4.54E+02	1.38E+02	1.40E+02	8.00E-02	8.10E-01	9.00E-01	-1.20E+00	3.00E+00	3.60E+00	-1.30E+00	3.30E+00	4.00E+00	1.30E+00	4.20E+00	4.60E+00	
	003	75.0	-4.7	6/22/2007	15:30	8.68E+03	1.05E+03	4.31E+02	3.98E+00	1.45E+00	1.04E+00	3.81E+00	3.78E+00	4.53E+00	1.95E+00	3.62E+00	4.63E+00	4.53E+00	1.54E+01	1.77E+01	
	004			8/9/2007	11:31	7.76E+02	2.06E+02	2.04E+02	-3.41E-02	6.87E-01	8.82E-01	6.29E-01	2.33E+00	2.76E+00	-1.05E+00	2.17E+00	2.17E+00	-2.21E+00	1.99E+01	2.36E+01	
	005			10/24/2007	13:53	1.11E103	4.71E102	4.03E102	2.35E-01	3.11E-01	3.43E-01	3.07E-01	2.71E100	3.05E100	-1.06E100	2.44E100	2.38E100	-1.59E100	2.09E101	2.41E101	
	006			1/21/2008	12:52	9.42E+02	1.86E+02	1.71E+02	2.19E-01	4.28E-01	4.87E-01	0.00E+00	5.42E+00	3.23E+00	-1.36E+00	2.84E+00	2.84E+00	3.84E+00	1.85E+01	2.11E+01	
	008			8/4/2008	12:25	1.21E+03	1.84E+02	1.91E+02	6.95E-01	3.04E-01	3.94E-01	2.79E+00	2.26E+00	4.16E+00	2.55E-02	2.14E+00	3.58E+00	1.15E+01	1.24E+01	2.09E+01	

IPEC00201784

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS															Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-53-120	001	109.8	-39.5	8/30/2006	11:30	4.42E+03	1.25E+03	1.12E+03	NA	NA	NA	-6.13E+00	9.49E+00	9.40E+00	4.98E-01	8.96E+00	9.83E+00	NA	NA	NA	MW-53-120
	002			11/9/2006	11:20	7.90E+03	1.47E+03	1.00E+03	2.47E+01	1.83E+00	7.90E-01	-4.60E-01	2.70E+00	3.10E+00	-3.50E-01	2.76E+00	3.30E+00	2.71E+01	1.32E+01	1.30E+01	
	003	105.0	-34.7	6/22/2007	14:22	9.61E+03	1.10E+03	4.32E+02	3.57E+01	3.69E+00	1.04E+00	7.93E+00	5.09E+00	2.84E+00	9.47E-01	3.15E+00	3.72E+00	1.73E+01	1.38E+01	1.47E+01	
	004			8/9/2007	12:45	8.05E+03	1.02E+03	4.59E+02	3.70E+01	3.18E+00	9.24E-01	1.37E+00	3.62E+00	4.27E+00	-1.59E-01	3.74E+00	4.17E+00	1.95E+01	2.14E+01	2.35E+01	
	005			10/24/2007	13:38	7.40E+03	9.29E+02	4.02E+02	3.81E+01	2.27E+00	4.82E-01	-5.34E-01	3.51E+00	3.29E+00	-2.23E-01	3.35E+00	3.72E+00	7.06E+00	2.10E+01	2.38E+01	
	006			1/21/2008	10:43	7.48E+03	3.48E+02	1.72E+02	3.12E+01	2.40E+00	6.46E-01	1.38E+00	3.02E+00	3.18E+00	1.14E-01	3.30E+00	3.71E+00	1.71E+01	1.85E+01	2.02E+01	
	008			5/13/2008	10:10	5.91E+03	3.38E+02	1.43E+02	3.11E+01	1.73E+00	6.73E-01	-1.39E+00	1.98E+00	3.10E+00	1.33E+00	2.15E+00	3.99E+00	2.22E+01	1.28E+01	2.08E+01	
	009			8/4/2008	10:15	5.80E+03	3.46E+02	1.91E+02	3.03E+01	1.52E+00	3.11E-01	-9.74E-01	1.93E+00	3.02E+00	-1.15E-01	2.33E+00	3.20E+00	2.65E+01	1.30E+01	2.11E+01	
	010			9/5/2008	10:55	5.76E+03	5.90E+02	5.07E+02	3.10E+01	1.59E+00	4.10E-01	-3.34E-01	2.41E+00	3.94E+00	NA	NA	NA	1.94E+01	1.19E+01	3.88E-01	
MW-54-37	001	36.5	-23.4	5/3/2007	16:19	8.01E+02	3.14E+02	3.02E+02	1.25E+01	2.12E+00	7.94E-01	2.44E+00	3.63E+00	4.42E+00	-1.43E+00	2.71E+00	2.51E+00	6.09E+00	1.98E+01	2.27E+01	MW-54-37
	002			7/31/2007	10:30	8.88E+02	4.14E+02	2.68E+02	5.30E+00	1.11E+00	6.26E-01	1.45E+00	2.54E+00	3.03E+00	-2.64E-02	2.82E+00	3.13E+00	-4.74E+00	1.83E+01	2.14E+01	
	003			10/19/2007	13:25	1.04E+03	4.26E+02	3.66E+02	6.19E+00	1.37E+00	6.14E-01	6.04E-01	3.30E+00	3.84E+00	6.61E-01	3.54E+00	4.19E+00	1.04E+01	1.59E+01	1.77E+01	
	004			1/15/2008	13:18	1.07E+03	4.97E+02	4.18E+02	5.79E+00	1.47E+00	7.26E-01	7.48E-02	2.81E+00	3.11E+00	1.03E+00	2.79E+00	3.00E+00	-1.88E-01	2.06E+01	2.43E+01	
	006			7/22/2008	17:00	9.50E+02	1.08E+02	1.31E+02	6.20E+00	7.50E-01	4.63E-01	1.34E+00	2.22E+00	3.94E+00	-4.43E-01	2.09E+00	3.34E+00	1.42E+00	1.68E+01	2.95E+01	
MW-54-58	001	57.5	-44.4	5/3/2007	16:45	7.60E+02	3.11E+02	3.02E+02	2.22E+00	9.99E-01	7.02E-01	-3.77E-01	2.81E+00	3.07E+00	1.15E-01	2.71E+00	3.09E+00	7.50E+00	1.88E+01	2.12E+01	MW-54-58
	002			7/31/2007	9:55	6.93E+02	3.72E+02	2.62E+02	1.76E+00	8.53E-01	7.52E-01	-1.32E+00	3.12E+00	3.23E+00	8.17E-03	3.01E+00	3.35E+00	1.97E-01	1.80E+01	2.08E+01	
	003			10/19/2007	13:35	5.61E+02	2.00E+02	1.94E+02	4.38E-01	8.43E-01	9.56E-01	-2.08E-01	3.03E+00	3.40E+00	3.56E-01	2.96E+00	3.39E+00	2.09E+00	1.59E+01	1.81E+01	
	004			1/15/2008	13:45	6.47E+02	4.40E+02	4.18E+02	2.32E+00	1.09E+00	8.13E-01	2.16E+00	4.59E+00	3.18E+00	-7.34E-01	3.06E+00	3.27E+00	4.41E+00	2.34E+01	2.71E+01	
	006			7/22/2008	17:05	5.78E+02	9.64E+01	1.31E+02	1.71E+00	5.24E-01	6.47E-01	3.78E-01	2.07E+00	3.59E+00	-1.41E-01	2.67E+00	4.23E+00	1.37E+01	1.69E+01	2.85E+01	
MW-54-123	001	123.0	-109.9	5/3/2007	14:18	1.11E+03	3.75E+02	3.36E+02	2.19E+01	2.71E+00	8.06E-01	4.21E+00	3.50E+00	3.67E+00	-2.65E+00	7.07E+00	3.31E+00	7.45E+00	1.79E+01	2.03E+01	MW-54-123
	002			7/31/2007	11:10	9.63E+02	4.29E+02	3.69E+02	1.35E+01	1.47E+00	8.87E-01	0.00E+00	4.68E+00	4.49E+00	2.96E+00	4.02E+00	5.06E+00	-3.63E+00	1.86E+01	2.17E+01	
	003			10/19/2007	12:09	7.01E+02	3.87E+02	3.62E+02	1.16E+01	1.88E+00	8.13E-01	4.02E-02	3.51E+00	3.88E+00	-1.72E+00	3.65E+00	3.68E+00	-4.31E-01	2.19E+01	2.51E+01	
	004			1/15/2008	10:52	5.33E+02	4.23E+02	4.18E+02	9.56E+00	1.92E+00	7.51E-01	8.25E-01	3.48E+00	3.94E+00	4.41E-01	3.00E+00	3.42E+00	6.86E+00	2.25E+01	2.58E+01	
	006			7/22/2008	15:30	6.12E+02	9.77E+01	1.32E+02	6.52E+00	8.15E-01	5.56E-01	-2.82E-01	2.22E+00	3.72E+00	-2.93E+00	2.52E+00	3.55E+00	4.33E+00	1.57E+01	2.73E+01	
MW-54-144	001	144.0	-130.9	5/3/2007	14:31	1.34E103	5.64E102	4.68E102	1.61E101	2.42E100	6.97E-01	-1.34E100	3.62E100	3.78E100	5.23E-01	3.35E100	3.84E100	4.64E100	1.68E101	1.93E101	MW-54-144
	002			7/31/2007	13:33	1.89E+03	5.67E+02	2.66E+02	1.92E+01	1.98E+00	6.71E-01	-1.19E+00	2.90E+00	3.03E+00	5.02E-02	3.33E+00	3.77E+00	-6.13E+00	1.89E+01	2.23E+01	
	003			10/19/2007	12:12	1.54E+03	4.73E+02	3.62E+02	1.58E+01	2.15E+00	7.69E-01	8.53E-01	2.85E+00	3.35E+00	-4.41E-01	3.18E+00	3.39E+00	4.35E-01	1.54E+01	1.78E+01	
	004			1/15/2008	11:22	1.40E+03	5.34E+02	4.16E+02	1.53E+01	2.34E+00	8.48E-01	3.67E+00	5.04E+00	4.39E+00	4.86E-02	3.96E+00	4.34E+00	9.81E+00	2.24E+01	2.54E+01	
	006			7/22/2008	15:35	1.13E+03	1.13E+02	1.31E+02	1.69E+01	1.23E+00	5.01E-01	1.57E+00	1.91E+00	3.48E+00	-4.98E-01	2.43E+00	3.49E+00	1.11E+01	1.69E+01	2.87E+01	
MW-54-173	001	172.5	-159.4	5/3/2007	14:43	1.90E+03	6.27E+02	4.71E+02	2.09E+01	2.64E+00	8.31E-01	-4.52E-01	3.82E+00	4.16E+00	1.92E+00	3.46E+00	4.27E+00	5.00E+00	1.94E+01	2.21E+01	MW-54-173
	002			7/31/2007	13:40	2.08E+03	5.94E+02	2.68E+02	1.45E+01	1.85E+00	8.29E-01	7.90E-01	2.63E+00	3.10E+00	7.75E-01	2.22E+00	2.74E+00	3.92E+00	1.81E+01	2.07E+01	
	003			10/19/2007	12:14	1.91E+03	5.07E+02	3.63E+02	1.49E+01	2.07E+00	6.21E-01	1.05E+00	3.29E+00	3.79E+00	-3.08E-01	2.87E+00	3.18E+00	1.37E+00	1.49E+01	1.70E+01	
	004			1/15/2008	11:15	1.84E+03	5.84E+02	4.16E+02	1.41E+01	1.80E+00	9.29E-01	-3.68E-01	2.81E+00	3.08E+00	5.21E-01	3.00E+00	3.49E+00	4.79E+00	2.30E+01	2.65E+01	
	006			7/22/2008	15:51	2.05E+03	1.35E+02	1.30E+02	1.29E+01	1.08E+00	5.25E-01	-6.92E-02	2.07E+00	3.52E+00	-1.62E+00	2.11E+00	3.15E+00	7.86E+00	1.59E+01	2.72E+01	
MW-54-190	001	190.0	-176.9	5/3/2007	15:00	1.87E+03	6.23E+02	4.71E+02	1.95E+01	2.56E+00	7.00E-01	1.82E+00	3.23E+00	3.90E+00	3.32E-01	2.90E+00	3.30E+00	1.54E+00	1.88E+01	2.18E+01	MW-54-190
	002			7/31/2007	13:45	2.25E+03	6.12E+02	2.66E+02	1.79E+01	2.15E+00	7.59E-01	-2.13E+00	3.35E+00	3.12E+00	9.32E-01	3.09E+00	3.67E+00	-3.07E+00	1.66E+01	1.94E+01	
	003			10/19/2007	12:20	2.13E+03	5.24E+02	3.60E+02	2.04E+01	2.46E+00	7.97E-01	-1.04E+00	3.45E+00	3.07E+00	7.41E-01	4.05E+00	3.33E+00	-3.38E+00	1.71E+01	1.97E+01	
	004			1/15/2008	11:37	2.24E+03	6.26E+02	4.16E+02	1.93E+01	2.54E+00	8.15E-01	6.45E-01	2.64E+00	3.11E+00	-3.88E-01	2.28E+00	2.50E+00	9.23E+00	2.42E+01	2.75E+01	
	006			7/22/2008	15:50	1.25E103	1.15E102	1.30E102	2.13E101	1.37E100	5.60E-01	8.45E-01	1.98E100	3.41E100	-1.64E100	2.06E100	3.02E100	-8.42E100	1.61E101	2.92E101	
MW-55-24	001	19.1	-0.8	11/9/2006	13:20	2.00E+03	1.11E+03	1.00E+03	1.66E+01	2.40E+00	1.90E+00	-7.00E-01	4.50E+00	5.80E+00	4.00E-01	5.40E+00	6.70E+00	1.10E+00	5.40E+00	6.00E+00	MW-55-24
	002	16.0	2.3	6/28/2007	11:20	3.08E+03	2.96E+02	1.87E+02	3.25E+01	3.51E+00	1.06E+00	0.00E+00	4.00E+00	3.70E+00	1.16E+00	3.81E+00	4.60E+00	NA	NA	NA	
	003			8/2/2007	11:17	2.71E+03	7.28E+02	5.47E+02	2.31E+01	2.67E+00	9.19E-01	-4.91E-01	2.79E+00	3.02E+00	1.40E+00	2.94E+00	3.47E+00	-7.94E+00	1.91E+01	2.31E+01	
	004			10/16/2007	10:15	2.20E+03	5.36E+02	3.68E+02	2.29E+01	2.61E+00	8.43E-01	6.26E-01	3.63E+00	4.21E+00	7.46E-01	3.29E+00	3.47E+00	NA	NA	NA	
	005			1/28/2008	12:57	1.14E+03	3.65E+02	2.96E+02	2.26E+01	2.46E+00	9.24E-01	3.33E+00	3.26E+00	2.50E+00	1.04E+00	1.55E+00	2.51E+00	1.44E+01	1.82E+01	2.00E+01	
	007			8/1/2008	13:15	1.40E+03	1.93E+02	1.91E+02	2.22E+01	1.36E+00	5.73E-01	-7.37E-03	2.19E+00	3.69E+00	2.85E+00	2.34E+00	4.16E+00	6.11E+00	1.24E+01	2.11E+01	
MW-55-35	001	32.4	-14.2	11/9/2006	13:40	9.04E103	1.50E103	1.00E103	4.04E101	4.80E100	3.30E100	-1.10E100	3.30E100	3.90E100	-5.00E-01	3.30E100	4.10E100	4.30E100	5.40E100	5.80E100	MW-55-35
	002	32.0	-13.8	6/28/2007	11:50	3.09E+03	2.93E+02	1.84E+02	3.25E+01	3.31E+00	9.74E-01	-4.64E-01	3.46E+00	3.78E+00	-1.00E+00	3.62E+00	3.75E+00	NA	NA	NA	
	003			8/2/2007	11:20	3.68E+03	7.91E+02	5.33E+02	3.40E+01	3.45E+00	8.95E-01	9.35E-01	3.19E+00	3.24E+00	7.69E-01	2.23E+00	2.70E+00	2.90E+00	1.96E+01	2.28E+01	

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS															Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-55-35	004			10/16/2007	10:02	5.09E+03	7.34E+02	3.63E+02	3.16E+01	3.04E+00	1.04E+00	2.62E+00	3.36E+00	3.58E+00	1.44E+00	3.44E+00	4.20E+00	NA	NA	NA	MW-55-35
	005			1/28/2008	11:46	2.33E+03	4.59E+02	2.97E+02	2.64E+01	2.60E+00	5.21E-01	-5.28E-01	2.12E+00	2.26E+00	-6.90E-01	2.19E+00	2.32E+00	1.12E+01	1.76E+01	1.96E+01	
	007			8/1/2008	10:47	1.73E+03	2.08E+02	1.91E+02	2.54E+01	1.42E+00	4.28E-01	3.51E-01	2.17E+00	3.74E+00	2.59E-01	2.33E+00	3.99E+00	1.26E+01	1.23E+01	2.05E+01	
MW-55-54	001	49.0	-30.8	11/9/2006	13:30	1.31E+04	1.68E+03	1.00E+03	2.28E+01	1.35E+00	8.10E-01	1.00E+00	3.30E+00	3.80E+00	-3.20E+00	4.50E+00	5.70E+00	1.70E+00	4.80E+00	5.40E+00	MW-55-54
	002	47.0	-28.8	6/28/2007	11:40	1.04E+04	4.79E+02	1.84E+02	2.47E+01	2.88E+00	9.85E-01	1.30E-01	3.09E+00	3.43E+00	-4.69E-01	3.27E+00	3.48E+00	NA	NA	NA	
	003			8/2/2007	12:00	9.91E+03	1.19E+03	5.51E+02	2.22E+01	2.38E+00	9.10E-01	-1.09E+00	3.69E+00	3.80E+00	1.46E+00	2.87E+00	3.56E+00	6.13E+00	1.99E+01	2.28E+01	
	004			10/16/2007	10:05	1.03E+04	9.96E+02	3.61E+02	2.23E+01	2.49E+00	6.15E-01	-9.80E-01	2.82E+00	3.02E+00	8.80E-01	3.65E+00	2.99E+00	NA	NA	NA	
	005			1/28/2008	11:42	7.48E+03	7.35E+02	2.97E+02	2.28E+01	2.40E+00	5.39E-01	-8.47E-01	2.16E+00	2.30E+00	-1.29E+00	2.81E+00	2.20E+00	1.09E+01	1.86E+01	2.09E+01	
	007			8/1/2008	10:38	6.31E+03	3.59E+02	1.91E+02	2.32E+01	1.30E+00	3.56E-01	6.53E-01	2.07E+00	3.52E+00	1.29E+00	1.79E+00	3.30E+00	1.82E+01	1.26E+01	2.08E+01	
MW-56-53	001	52.5	17.8	1/4/2007	9:39	7.80E+02	5.40E+02	5.10E+02	-9.00E-02	7.80E-01	8.80E-01	1.36E+01	4.80E+00	4.20E+00	2.00E+00	3.60E+00	3.80E+00	-3.70E+00	6.60E+00	7.80E+00	MW-56-53
	002	52.0	18.3	6/26/2007	10:51	2.89E+02	1.70E+02	1.82E+02	-4.49E-02	5.50E-01	6.66E-01	-5.30E-01	4.46E+00	4.11E+00	2.93E+00	4.88E+00	4.84E+00	1.30E+00	1.41E+01	1.62E+01	
	003			8/10/2007	12:25	2.16E+02	1.86E+02	2.03E+02	-5.66E-01	6.10E-01	9.04E-01	8.31E-01	2.79E+00	3.21E+00	3.99E-02	2.56E+00	2.85E+00	NA	NA	NA	
	004			1/31/2008	12:30	2.63E+02	1.27E+02	1.31E+02	5.70E-01	8.81E-01	9.77E-01	3.38E-01	3.69E+00	3.87E+00	5.97E-01	3.48E+00	3.99E+00	1.74E+00	1.55E+01	1.80E+01	
MW-56-83	001	75.8	-5.5	9/8/2006	11:15	5.40E+02	1.62E+02	1.26E+02	2.70E+00	1.12E+00	9.59E-01	1.82E+00	6.51E+00	8.45E+00	-2.15E-01	5.23E+00	6.87E+00	NA	NA	NA	MW-56-83
	002			11/9/2006	10:20	1.65E+02	1.35E+02	1.40E+02	7.00E-02	7.20E-01	8.10E-01	7.70E-01	2.70E+00	3.10E+00	-2.20E-01	2.91E+00	3.50E+00	3.30E+00	5.40E+00	5.80E+00	
	003			1/4/2007	13:20	1.28E+03	5.70E+02	5.20E+02	2.30E+00	9.00E-01	8.90E-01	1.18E+01	4.80E+00	4.40E+00	1.00E-01	3.00E+00	3.60E+00	-7.00E-01	7.80E+00	8.80E+00	
	004	74.0	-3.7	6/22/2007	10:44	1.85E+03	5.76E+02	4.30E+02	1.87E+00	1.15E+00	1.09E+00	1.47E-01	3.39E+00	3.85E+00	-1.87E+00	2.82E+00	2.46E+00	3.95E+00	1.27E+01	1.46E+01	
	005			8/10/2007	11:10	1.49E+03	5.52E+02	4.55E+02	2.43E+00	1.05E+00	9.23E-01	-9.15E-01	3.86E+00	4.02E+00	1.87E-01	2.75E+00	3.15E+00	NA	NA	NA	
	006			1/31/2008	9:30	1.94E+03	1.97E+02	1.34E+02	3.56E+00	1.34E+00	9.49E-01	-8.03E-01	3.69E+00	3.23E+00	1.60E+00	2.78E+00	3.51E+00	6.57E-01	1.59E+01	1.85E+01	
MW-57-11	001	10.0	5.0	6/22/2007	12:17	4.61E+03	8.10E+02	4.36E+02	4.55E+01	3.96E+00	7.97E-01	2.29E+00	6.04E+00	4.31E+00	3.69E-02	3.87E+00	4.37E+00	2.24E+01	1.79E+01	1.91E+01	MW-57-11
	002			8/6/2007	12:30	4.09E+03	3.21E+06	1.97E+02	3.79E+01	2.77E+00	5.36E-01	1.15E+00	3.78E+00	4.16E+00	3.95E-03	3.01E+00	3.41E+00	-5.75E-01	2.16E+01	2.50E+01	
MW-57-20	001	19.0	-4.0	6/22/2007	12:30	1.65E+03	5.58E+02	4.32E+02	1.96E+00	1.07E+00	9.67E-01	-1.33E+00	3.69E+00	3.90E+00	-9.51E-01	3.65E+00	3.84E+00	4.77E-01	1.36E+01	1.59E+01	MW-57-20
	002			8/6/2007	12:15	9.96E+02	2.15E+02	1.96E+02	1.23E+00	6.67E-01	5.78E-01	1.21E+00	3.59E+00	3.64E+00	6.05E-01	2.75E+00	3.22E+00	-1.19E+01	2.06E+01	2.46E+01	
MW-57-45	001	40.0	-25.0	8/24/2006	9:30	4.00E+03	6.98E+02	3.17E+02	1.88E+01	3.51E+00	2.11E+00	-5.40E-01	6.75E+00	7.36E+00	1.19E+00	6.35E+00	7.50E+00	8.29E+00	9.09E+00	9.70E+00	MW-57-45
	001			8/24/2006	9:30	4.06E103	8.82E102	7.71E102	NA	NA	NA	-2.85E-01	4.41E100	4.80E100	-1.81E-01	3.89E100	4.37E100	NA	NA	NA	
	002			6/22/2007	12:55	9.55E+02	4.85E+02	4.35E+02	1.90E+00	1.05E+00	8.65E-01	-1.97E-01	3.40E+00	3.82E+00	-8.51E-01	3.50E+00	3.65E+00	6.46E-01	1.23E+01	1.43E+01	
	003			8/6/2007	12:17	7.40E+02	2.07E+02	1.98E+02	2.55E+00	8.77E-01	6.09E-01	-3.91E-01	3.15E+00	3.42E+00	-1.89E-01	3.59E+00	3.35E+00	-1.15E+01	2.09E+01	2.49E+01	
MW-58-26	001	21.6	-7.0	11/16/2006	13:25	-2.60E+01	1.59E+02	1.60E+02	3.70E-01	7.50E-01	8.20E-01	7.27E+01	8.40E+00	4.50E+00	-9.00E-01	3.30E+00	4.30E+00	-3.20E+00	5.70E+00	6.40E+00	MW-58-26
	002			1/5/2017	8:57	2.60E+02	1.80E+02	1.80E+02	-8.00E-02	7.50E-01	8.50E-01	2.34E+00	2.97E+00	3.20E+00	9.50E-01	2.73E+00	3.10E+00	-3.90E+00	6.30E+00	7.40E+00	
MW-58-26	003	20.0	-5.4	6/21/2007	11:10	5.97E+02	2.00E+02	1.86E+02	1.04E+00	6.09E-01	5.25E-01	1.62E+00	2.42E+00	2.86E+00	-3.94E-01	2.42E+00	2.60E+00	1.07E+00	1.24E+01	1.45E+01	
	004			7/31/2007	11:00	8.56E+02	3.99E+02	2.58E+02	1.02E+00	6.33E-01	5.78E-01	1.18E+00	3.31E+00	3.83E+00	4.20E-01	3.01E+00	3.51E+00	NA	NA	NA	
	005			1/22/2008	13:20	2.95E+02	1.62E+02	1.70E+02	-1.43E-01	4.65E-01	6.60E-01	9.19E-01	2.31E+00	2.67E+00	-5.41E-02	2.57E+00	2.61E+00	NA	NA	NA	
MW-58-65	001	57.6	-43.0	11/16/2006	13:18	-9.60E+01	1.59E+02	1.60E+02	-6.00E-02	7.20E-01	8.10E-01	2.20E+00	3.00E+00	3.30E+00	-9.00E-01	4.20E+00	4.90E+00	-3.40E+00	6.90E+00	7.80E+00	MW-58-65
	002			1/5/2007	9:25	5.50E+02	5.40E+02	5.20E+02	1.60E-01	8.10E-01	8.80E-01	-1.95E+00	2.52E+00	3.00E+00	-1.30E-01	2.73E+00	3.20E+00	-1.40E+00	7.80E+00	8.70E+00	
MW-58-65	003	54.0	-39.4	6/21/2007	11:10	3.15E+02	1.77E+02	1.81E+02	-1.90E-01	3.96E-01	5.60E-01	-2.19E-01	2.37E+00	2.65E+00	-2.89E+00	3.17E+00	2.36E+00	2.80E+00	1.26E+01	1.45E+01	
	004			7/31/2007	11:00	3.42E+02	3.02E+02	2.72E+02	6.20E-03	5.19E-01	6.52E-01	2.18E+00	3.39E+00	3.37E+00	1.02E+00	3.24E+00	3.39E+00	NA	NA	NA	
	005			1/22/2008	12:00	3.13E+02	1.62E+02	1.69E+02	1.21E-01	5.85E-01	7.22E-01	5.54E-01	3.93E+00	3.92E+00	-1.23E-01	3.29E+00	3.05E+00	NA	NA	NA	
MW-59-32	001	26.2	-11.7	11/16/2006	11:05	2.80E+01	1.77E+02	1.80E+02	-6.00E-02	7.20E-01	7.90E-01	8.60E-01	2.91E+00	3.30E+00	3.00E-01	4.20E+00	4.90E+00	-2.60E+00	6.60E+00	7.50E+00	MW-59-32
	002			1/5/2007	9:41	1.35E102	1.77E102	1.80E102	3.00E-01	7.50E-01	8.20E-01	1.50E100	3.60E100	4.10E100	1.30E100	3.90E100	4.40E100	-1.90E100	6.90E100	8.10E100	
	003	27.0	-12.5	6/21/2007	15:25	4.67E+02	4.23E+02	4.36E+02	-6.68E-02	6.78E-01	9.11E-01	6.01E-01	3.96E+00	4.59E+00	-4.19E-01	4.46E+00	4.71E+00	-4.37E-01	1.24E+01	1.45E+01	
	004			7/31/2007	14:35	1.69E+02	1.59E+02	1.63E+02	2.00E-01	6.72E-01	7.96E-01	2.26E-01	3.30E+00	3.73E+00	7.97E-01	3.19E+00	3.75E+00	NA	NA	NA	
MW-59-45	001	40.4	-25.9	11/16/2006	11:18	5.50E+01	1.74E+02	1.70E+02	2.40E-01	7.20E-01	8.00E-01	3.74E+01	8.70E+00	6.20E+00	2.60E+00	4.20E+00	4.50E+00	-1.60E+00	5.70E+00	6.60E+00	MW-59-45
	002			1/5/2007	9:48	8.80E+01	1.80E+02	1.80E+02	0.00E+00	7.80E-01	8.70E-01	1.49E+02	1.26E+01	4.90E+00	2.00E-01	3.90E+00	4.60E+00	-2.50E+00	7.50E+00	8.60E+00	
	003	42.0	-27.5	6/21/2007	15:25	7.54E+02	4.59E+02	4.34E+02	-2.74E-01	6.86E-01	9.10E-01	-1.10E-01	2.50E+00	2.83E+00	8.14E-02	2.16E+00	2.49E+00	7.74E-01	1.47E+01	1.71E+01	
	004			7/31/2007	13:58	2.49E+02	1.74E+02	1.65E+02	1.64E-01	5.90E-01	7.05E-01	4.48E-01	3.52E+00	3.70E+00	7.64E-01	3.35E+00	3.94E+00	NA	NA	NA	
MW-59-68	001	60.6	-46.1	11/16/2006	11:30	5.50E101	1.74E102	1.80E102	1.20E-01	7.20E-01	8.10E-01	1.15E102	1.11E101	5.60E100	1.00E100	3.00E100	3.60E100	-2.30E100	5.70E100	6.40E100	MW-59-68
	002			1/5/2007	10:05	1.56E+02	1.83E+02	1.80E+02	3.30E-01	8.10E-01	8.90E-01	6.76E+01	6.60E+00	4.10E+00	-8.00E-01	3.60E+00	4.10E+00	1.90E+00	7.50E+00	8.40E+00	
	003	58.0	-43.5	6/21/2007	15:25	5.90E+02	4.41E+02	4.39E+02	2.97E-01	8.79E-01	1.03E+00	6.26E-01	3.50E+00	3.80E+00	1.27E+00	2.91E+00	3.62E+00	-4.23E+00	1.30E+01	1.56E+01	

IPEC00201786

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS															Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-59-68	004			7/31/2007	13:58	8.19E+02	4.02E+02	2.68E+02	3.66E-01	7.08E-01	7.98E-01	9.02E-01	2.88E+00	2.95E+00	3.72E-01	2.77E+00	3.17E+00	NA	NA	NA	MW-59-68
MW-60-35	001	34.9	-22.4	5/8/2007	13:27	-9.12E+00	1.49E+02	1.79E+02	-1.79E-01	5.28E-01	7.62E-01	1.41E+00	4.84E+00	3.30E+00	2.45E+00	3.72E+00	4.67E+00	0.00E+00	1.81E+01	2.12E+01	MW-60-35
	002			7/27/2007	13:07	7.61E+02	2.40E+02	1.78E+02	6.48E-02	3.80E-01	4.66E-01	5.95E-01	4.26E+00	3.23E+00	-3.31E-01	3.07E+00	3.39E+00	NA	NA	NA	
	003			10/9/2007	13:20	1.84E+02	1.48E+02	1.51E+02	3.01E-01	5.97E-01	6.78E-01	1.51E+00	6.06E+00	3.54E+00	0.00E+00	2.64E+00	2.61E+00	NA	NA	NA	
	004			1/14/2008	17:05	7.78E+01	1.58E+02	1.78E+02	5.05E-01	8.10E-01	8.98E-01	1.11E+00	3.21E+00	3.79E+00	-9.16E-01	3.36E+00	3.54E+00	NA	NA	NA	
	006			7/30/2008	16:10	1.95E+02	1.21E+02	1.91E+02	2.85E-01	3.50E-01	5.92E-01	1.81E+00	1.93E+00	3.50E+00	-1.19E+00	2.07E+00	3.20E+00	NA	NA	NA	
MW-60-53	001	53.4	-40.9	5/8/2007	11:52	5.32E+01	1.58E+02	1.82E+02	-4.92E-01	5.52E-01	8.96E-01	-2.83E+00	4.86E+00	4.07E+00	2.15E-01	3.59E+00	4.12E+00	3.58E+00	1.84E+01	2.12E+01	MW-60-53
	002			7/27/2007	12:50	1.25E+02	1.71E+02	1.87E+02	-4.72E-01	5.26E-01	7.31E-01	1.46E-01	3.01E+00	3.34E+00	7.87E-01	3.25E+00	3.79E+00	NA	NA	NA	
	003			10/9/2007	12:22	1.13E+02	1.44E+02	1.56E+02	6.19E-01	6.50E-01	6.79E-01	-2.11E+00	3.39E+00	3.51E+00	3.62E-01	2.79E+00	3.21E+00	NA	NA	NA	
	004			1/14/2008	15:40	5.35E+01	1.55E+02	1.78E+02	-1.69E-01	5.28E-01	7.59E-01	-1.10E+00	2.78E+00	2.88E+00	-1.89E+00	2.94E+00	2.76E+00	NA	NA	NA	
	006			7/30/2008	13:23	1.28E+02	9.80E+01	1.63E+02	6.53E-01	5.33E-01	8.58E-01	-1.68E-01	2.09E+00	3.43E+00	1.05E+00	2.04E+00	3.65E+00	NA	NA	NA	
MW-60-72	001	72.4	-59.9	5/8/2007	12:17	-9.26E+00	1.52E+02	1.82E+02	2.87E-01	8.13E-01	9.71E-01	1.61E+00	4.72E+00	3.33E+00	9.40E-01	3.21E+00	3.82E+00	8.28E-01	1.69E+01	1.97E+01	MW-60-72
	002			7/27/2007	13:22	1.10E+02	1.64E+02	1.81E+02	-3.27E-01	4.92E-01	5.76E-01	4.79E-01	3.96E+00	4.51E+00	-1.10E+00	3.94E+00	4.17E+00	NA	NA	NA	
	003			10/9/2007	14:15	1.24E+02	1.43E+02	1.54E+02	1.64E-01	6.00E-01	7.12E-01	7.48E-01	3.78E+00	4.27E+00	6.12E-01	3.76E+00	4.33E+00	NA	NA	NA	
	004			1/14/2008	14:12	1.36E+02	1.65E+02	1.78E+02	1.58E-01	5.93E-01	7.23E-01	5.42E-03	3.33E+00	3.56E+00	8.47E-01	2.97E+00	3.54E+00	NA	NA	NA	
	006			7/30/2008	13:25	8.27E+01	9.69E+01	1.63E+02	5.64E-01	3.01E-01	4.27E-01	-8.79E-01	2.39E+00	3.91E+00	-1.11E+00	2.47E+00	3.96E+00	NA	NA	NA	
	006			7/30/2008	13:25	NA	NA	NA	1.73E-01	1.41E-01	2.33E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-60-135	001	134.9	-122.4	5/8/2007	12:03	2.54E+01	1.55E+02	1.81E+02	3.35E-01	6.77E-01	7.74E-01	-1.05E+00	3.50E+00	3.08E+00	1.74E-01	3.12E+00	3.52E+00	4.54E+00	1.77E+01	2.02E+01	MW-60-135
	002			7/27/2007	16:00	3.92E+02	2.03E+02	1.81E+02	-2.13E-01	3.09E-01	4.69E-01	2.78E-02	2.70E+00	3.07E+00	1.78E-01	2.63E+00	3.04E+00	NA	NA	NA	
	003			10/9/2007	14:20	5.20E+02	1.83E+02	1.50E+02	-2.59E-01	4.46E-01	6.31E-01	-1.55E+00	3.40E+00	3.52E+00	-8.88E-02	3.57E+00	3.94E+00	NA	NA	NA	
	004			1/14/2008	14:19	3.79E+02	1.89E+02	1.74E+02	-1.70E-01	6.17E-01	8.52E-01	-1.33E+00	3.14E+00	3.25E+00	4.22E-01	3.17E+00	3.59E+00	NA	NA	NA	
	006			7/30/2008	13:33	4.91E+02	1.42E+02	1.91E+02	1.70E-01	3.44E-01	6.18E-01	-4.68E-01	1.79E+00	2.88E+00	1.43E+00	2.00E+00	3.61E+00	NA	NA	NA	
MW-60-154	001	154.4	-141.9	5/8/2007	12:33	4.13E+01	1.55E+02	1.80E+02	3.06E-01	8.13E-01	9.50E-01	1.97E-01	3.46E+00	3.86E+00	1.46E+00	3.75E+00	4.46E+00	5.52E-01	1.68E+01	1.97E+01	MW-60-154
	002			7/27/2007	16:18	4.62E+02	2.09E+02	1.79E+02	-1.53E-01	3.46E-01	4.09E-01	8.09E-01	4.23E+00	4.60E+00	3.74E+00	2.42E+00	3.80E+00	NA	NA	NA	
	003			10/9/2007	14:23	5.80E+02	1.88E+02	1.50E+02	-1.92E-02	4.98E-01	6.33E-01	-1.63E+00	3.50E+00	3.68E+00	2.20E-01	3.30E+00	3.76E+00	NA	NA	NA	
	004			1/14/2008	12:35	5.59E+02	2.13E+02	1.79E+02	1.10E+00	1.17E+00	1.24E+00	1.59E+00	3.84E+00	4.46E+00	2.92E-01	4.35E+00	4.82E+00	NA	NA	NA	
	006			7/30/2008	13:35	5.16E+02	1.44E+02	1.91E+02	5.10E-01	2.52E-01	3.27E-01	-8.80E-01	2.67E+00	3.58E+00	4.30E-01	1.89E+00	3.25E+00	NA	NA	NA	
	006			7/30/2008	13:35	NA	NA	NA	9.06E-03	1.64E-01	2.87E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-60-176	001	175.9	-163.4	5/8/2007	15:16	5.30E+02	2.01E+02	1.80E+02	6.88E-02	5.65E-01	7.29E-01	3.49E-01	4.54E+00	4.38E+00	1.14E+00	3.90E+00	3.98E+00	7.69E+00	1.73E+01	1.96E+01	MW-60-176
	002			7/27/2007	17:35	8.49E+02	2.49E+02	1.78E+02	-4.60E-01	5.84E-01	7.87E-01	2.00E+00	3.29E+00	4.00E+00	-1.76E+00	3.15E+00	3.03E+00	NA	NA	NA	
	003			10/9/2007	14:57	7.02E+02	2.01E+02	1.53E+02	-5.93E-02	5.11E-01	6.64E-01	-2.68E-01	2.63E+00	2.85E+00	3.91E-01	2.71E+00	3.09E+00	NA	NA	NA	
	004			1/14/2008	12:25	6.68E+02	2.25E+02	1.83E+02	-7.68E-02	7.89E-01	1.04E+00	2.22E-01	3.99E+00	4.52E+00	5.49E-01	3.54E+00	4.09E+00	NA	NA	NA	
	006			7/30/2008	14:08	8.95E+02	1.67E+02	1.91E+02	-2.08E-02	2.96E-01	5.88E-01	-3.15E-01	2.12E+00	3.44E+00	-2.05E-01	2.03E+00	3.34E+00	NA	NA	NA	
MW-62-18	001	13.5	1.2	5/17/2007	13:10	4.52E+02	1.83E+02	1.55E+02	2.98E-02	5.53E-01	7.27E-01	-5.10E-01	2.61E+00	2.89E+00	1.00E-01	2.79E+00	3.19E+00	4.61E+00	1.52E+01	1.74E+01	MW-62-18
	002			7/26/2007	15:45	5.08E+02	2.13E+02	1.78E+02	4.68E-01	4.93E-01	5.35E-01	9.04E-01	3.75E+00	4.35E+00	-2.80E+00	4.88E+00	3.80E+00	NA	NA	NA	
	003			10/10/2007	13:50	3.76E+02	1.73E+02	1.55E+02	1.80E+00	6.67E-01	4.87E-01	0.00E+00	3.39E+00	1.87E+00	-7.14E-02	1.71E+00	1.92E+00	NA	NA	NA	
	004			1/31/2008	15:15	3.50E+02	1.34E+02	1.34E+02	4.95E-01	7.55E-01	8.27E-01	1.18E+00	4.23E+00	4.46E+00	5.24E-01	3.38E+00	3.96E+00	NA	NA	NA	
	006			8/6/2008	12:55	2.69E+02	1.41E+02	2.25E+02	5.31E-01	3.30E-01	4.89E-01	9.69E-02	1.67E+00	2.82E+00	-1.26E-01	1.99E+00	3.33E+00	NA	NA	NA	
MW-62-37	001	34.5	-19.8	5/17/2007	11:10	2.97E+02	1.70E+02	1.59E+02	3.30E-01	8.28E-01	9.66E-01	9.81E-01	2.00E+00	2.37E+00	-1.12E+00	2.25E+00	2.31E+00	1.01E+01	1.81E+01	2.04E+01	MW-62-37
	002			7/26/2007	15:35	2.50E+02	1.79E+02	1.75E+02	-2.57E-01	4.14E-01	5.18E-01	-6.88E-02	2.64E+00	2.94E+00	-4.23E-01	2.60E+00	2.81E+00	NA	NA	NA	
	003			10/10/2007	14:50	3.02E+02	1.58E+02	1.47E+02	-1.67E-01	4.41E-01	6.10E-01	2.12E-01	1.81E+00	2.02E+00	-7.67E-01	1.74E+00	1.83E+00	NA	NA	NA	
	004			1/10/2008	13:55	3.97E+02	1.68E+02	1.71E+02	1.34E-01	6.05E-01	7.24E-01	8.35E-01	4.43E+00	4.62E+00	-2.10E-01	3.87E+00	4.19E+00	NA	NA	NA	
	006			8/6/2008	12:00	3.94E+02	1.19E+02	1.45E+02	2.23E-01	2.69E-01	4.54E-01	-2.55E+00	1.52E+00	2.06E+00	-1.08E+00	1.56E+00	2.38E+00	NA	NA	NA	
MW-62-53	001	53.1	-40.3	5/10/2007	15:00	3.93E+02	1.91E+02	1.72E+02	4.41E-01	7.97E-01	8.96E-01	6.50E-01	3.40E+00	3.86E+00	-9.12E-01	3.52E+00	3.74E+00	-5.00E+00	1.40E+01	1.68E+01	MW-62-53
	002			7/26/2007	15:34	3.45E+02	1.94E+02	1.78E+02	3.56E-01	6.98E-01	7.85E-01	0.00E+00	4.62E+00	2.53E+00	-8.44E-01	2.77E+00	2.45E+00	NA	NA	NA	
	003			1/10/2008	15:37	3.48E+02	1.67E+02	1.71E+02	4.45E-02	6.72E-01	8.15E-01	-7.91E-01	2.75E+00	2.93E+00	7.68E-01	2.88E+00	3.43E+00	NA	NA	NA	
	005			8/6/2008	12:35	3.52E+02	1.54E+02	2.41E+02	9.52E-03	2.54E-01	4.95E-01	1.38E+00	2.24E+00	3.98E+00	3.02E-01	2.30E+00	3.87E+00	NA	NA	NA	
MW-62-71	001	71.1	-58.3	5/10/2007	11:35	5.02E+02	2.00E+02	1.71E+02	6.16E-01	8.34E-01	8.92E-01	-8.78E-01	3.51E+00	3.75E+00	1.37E-01	3.21E+00	3.59E+00	4.93E+00	1.29E+01	1.48E+01	MW-62-71

IPEC00201787

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS															Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-62-71	002			7/26/2007	12:20	1.51E+02	1.65E+02	1.74E+02	2.15E-01	7.26E-01	8.29E-01	1.11E+00	3.36E+00	3.91E+00	-2.39E-01	3.48E+00	3.90E+00	NA	NA	NA	MW-62-71
	003			10/10/2007	12:23	2.69E+02	1.61E+02	1.55E+02	1.15E-01	5.22E-01	6.30E-01	1.18E+00	2.43E+00	2.45E+00	1.54E+00	2.10E+00	2.55E+00	NA	NA	NA	
	004			1/10/2008	14:04	3.53E+02	1.89E+02	1.94E+02	3.78E-01	5.85E-01	6.46E-01	-7.82E-01	2.51E+00	2.72E+00	3.78E-02	2.22E+00	2.55E+00	NA	NA	NA	
	006			8/6/2008	11:42	4.64E+02	1.66E+02	2.53E+02	3.31E-01	2.60E-01	3.94E-01	5.85E-01	2.01E+00	3.53E+00	-4.96E-01	2.23E+00	3.66E+00	NA	NA	NA	
MW-62-92	001	91.6	-78.8	5/10/2007	11:18	7.00E+02	2.16E+02	1.68E+02	7.11E-01	9.21E-01	9.85E-01	-1.58E+00	4.63E+00	3.30E+00	7.45E-01	3.12E+00	3.72E+00	-7.73E+00	1.30E+01	1.65E+01	MW-62-92
	002			7/26/2007	12:35	4.37E+02	2.07E+02	1.80E+02	-2.28E-02	3.39E-01	3.94E-01	6.50E-01	3.15E+00	3.63E+00	8.32E-01	3.38E+00	3.95E+00	NA	NA	NA	
	003			10/10/2007	12:15	4.28E+02	1.73E+02	1.50E+02	-1.91E-01	4.77E-01	6.54E-01	6.23E-01	1.88E+00	2.01E+00	1.85E+00	1.80E+00	2.21E+00	NA	NA	NA	
	004			1/10/2008	11:09	3.94E+02	1.92E+02	1.94E+02	1.38E-01	6.59E-01	7.90E-01	3.75E-01	2.94E+00	3.39E+00	9.37E-01	3.47E+00	3.62E+00	NA	NA	NA	
	006			8/6/2008	11:49	4.95E+02	1.59E+02	2.38E+02	2.43E-01	3.29E-01	5.64E-01	1.51E+00	2.29E+00	4.11E+00	5.16E+00	2.59E+00	5.35E+00	NA	NA	NA	
MW-62-138	001	138.1	-125.3	5/10/2007	10:22	4.55E+02	1.98E+02	1.74E+02	8.19E-01	8.16E-01	8.00E-01	1.73E+00	4.17E+00	3.28E+00	-1.40E+00	3.42E+00	3.55E+00	-4.93E+00	1.32E+01	1.64E+01	MW-62-138
	002			7/26/2007	15:55	5.38E+02	2.19E+02	1.82E+02	5.26E-01	5.79E-01	6.09E-01	6.88E-02	3.51E+00	3.98E+00	6.39E-01	3.93E+00	4.54E+00	NA	NA	NA	
	003			10/10/2007	14:46	7.78E+02	2.09E+02	1.54E+02	8.37E-01	8.30E-01	8.69E-01	0.00E+00	2.67E+00	2.90E+00	-1.19E+00	2.44E+00	2.50E+00	NA	NA	NA	
	004			1/10/2008	10:05	7.69E+02	1.82E+02	1.74E+02	7.34E-01	4.32E-01	3.52E-01	4.30E-01	3.36E+00	3.88E+00	1.05E-01	3.47E+00	3.91E+00	NA	NA	NA	
	006			8/6/2008	11:41	5.33E+02	1.55E+02	2.28E+02	1.21E+00	4.18E-01	5.01E-01	8.24E-01	2.44E+00	4.27E+00	3.85E-01	2.41E+00	4.20E+00	NA	NA	NA	
MW-62-182	001	182.1	-169.3	5/10/2007	10:43	5.41E+02	2.09E+02	1.76E+02	1.22E-01	7.18E-01	8.90E-01	3.74E-02	3.50E+00	3.33E+00	-2.40E-01	3.23E+00	3.53E+00	-1.76E+00	1.24E+01	1.50E+01	MW-62-182
	002			7/26/2007	16:20	4.17E+02	2.06E+02	1.82E+02	-9.56E-02	2.73E-01	3.26E-01	-1.16E+00	3.10E+00	3.25E+00	6.21E-01	2.70E+00	3.15E+00	NA	NA	NA	
	003			10/10/2007	14:42	4.94E+02	1.83E+02	1.54E+02	-1.48E-01	4.40E-01	5.99E-01	6.04E-01	1.91E+00	1.91E+00	5.45E-01	1.92E+00	2.23E+00	NA	NA	NA	
	004			1/10/2008	11:15	4.70E102	1.68E102	1.71E102	8.15E-02	5.13E-01	6.33E-01	-1.17E-01	2.96E100	2.99E100	9.22E-01	1.31E100	2.33E100	NA	NA	NA	
	006			8/6/2008	13:54	3.99E+02	1.52E+02	2.34E+02	5.30E-02	3.33E-01	6.16E-01	8.48E-01	2.19E+00	3.85E+00	-2.67E-01	2.40E+00	3.97E+00	NA	NA	NA	
MW-63-18	001	14.9	0.7	5/18/2007	10:35	2.30E+02	1.59E+02	1.57E+02	4.75E-02	5.37E-01	6.95E-01	8.56E-01	2.41E+00	2.67E+00	1.11E+00	2.65E+00	2.74E+00	7.36E+00	1.61E+01	1.82E+01	MW-63-18
	002			7/30/2007	13:10	2.00E+02	1.74E+02	1.89E+02	-2.18E-01	3.91E-01	4.68E-01	1.98E+00	2.65E+00	3.03E+00	-1.31E+00	2.50E+00	2.53E+00	NA	NA	NA	
	003			10/11/2007	12:43	1.49E+02	1.56E+02	1.71E+02	3.08E-01	6.23E-01	7.12E-01	1.52E+00	2.63E+00	3.16E+00	-1.41E-01	2.52E+00	2.74E+00	NA	NA	NA	
	004			1/9/2008	14:55	1.23E+02	1.56E+02	1.73E+02	-6.34E-02	5.55E-01	7.38E-01	2.55E+00	3.29E+00	3.42E+00	1.97E+00	2.94E+00	3.75E+00	NA	NA	NA	
	006			7/30/2008	11:13	1.79E+02	1.20E+02	1.91E+02	3.29E+00	5.61E-01	4.68E-01	-1.71E-02	1.75E+00	2.97E+00	-1.16E+00	2.04E+00	2.49E+00	NA	NA	NA	
	006			7/30/2008	11:13	NA	NA	NA	1.07E-01	2.06E-01	3.51E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-63-34	001	31.5	-17.3	5/18/2007	13:03	2.28E+02	1.58E+02	1.55E+02	-1.62E-01	5.43E-01	7.77E-01	4.10E-01	2.21E+00	2.51E+00	-3.25E-01	2.65E+00	2.44E+00	1.57E+00	1.54E+01	1.80E+01	MW-63-34
	002			7/30/2007	13:28	2.80E+02	1.77E+02	1.90E+02	-1.64E-01	3.36E-01	4.03E-01	1.73E-01	3.66E+00	3.56E+00	3.98E-01	3.66E+00	4.24E+00	NA	NA	NA	
	003			10/11/2007	12:50	2.31E+02	1.61E+02	1.74E+02	-2.75E-01	4.44E-01	6.73E-01	-6.24E-01	3.60E+00	3.58E+00	3.81E-01	2.65E+00	3.10E+00	NA	NA	NA	
	004			1/9/2008	14:20	3.26E+02	1.65E+02	1.71E+02	1.24E-01	5.57E-01	6.84E-01	1.83E+00	3.63E+00	4.44E+00	3.53E-01	3.90E+00	4.35E+00	NA	NA	NA	
	006			7/30/2008	11:12	4.41E+02	1.39E+02	1.91E+02	1.15E+00	4.60E-01	6.45E-01	-1.48E-02	2.26E+00	3.87E+00	-7.91E-01	2.52E+00	3.65E+00	NA	NA	NA	
	006			7/30/2008	11:12	NA	NA	NA	-2.54E-02	1.58E-01	2.82E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-63-50	001	49.5	-37.2	5/15/2007	11:48	3.26E+02	1.83E+02	1.73E+02	-9.70E-02	6.15E-01	8.32E-01	-1.33E-01	5.28E+00	5.01E+00	6.64E-01	4.23E+00	4.81E+00	-2.41E+00	1.24E+01	1.51E+01	MW-63-50
	002			7/25/2007	14:00	2.25E+02	1.80E+02	1.95E+02	1.29E-01	6.03E-01	6.84E-01	2.08E+00	3.18E+00	3.90E+00	-1.58E-01	3.19E+00	3.54E+00	NA	NA	NA	
	003			10/11/2007	11:10	2.89E+02	1.62E+02	1.73E+02	-3.41E-01	5.10E-01	7.67E-01	6.21E-01	2.98E+00	3.39E+00	1.56E+00	3.17E+00	3.86E+00	NA	NA	NA	
	004			1/9/2008	12:32	3.56E+02	1.67E+02	1.72E+02	4.48E-01	7.41E-01	8.26E-01	3.37E-01	2.65E+00	3.02E+00	-1.42E+00	3.14E+00	3.20E+00	NA	NA	NA	
	006			7/30/2008	10:29	3.35E+02	1.32E+02	1.91E+02	6.10E-01	4.97E-01	8.02E-01	-1.77E+00	1.83E+00	2.66E+00	-1.22E+00	1.91E+00	2.80E+00	NA	NA	NA	
MW-63-93	001	93.0	-80.7	10/2/2006	13:10	5.16E+02	1.95E+02	5.70E+01	7.81E-02	6.73E-01	7.32E-01	5.46E-01	1.43E+01	1.59E+01	-4.42E+00	1.67E+01	2.03E+01	-5.31E+00	1.23E+01	1.54E+01	MW-63-93
	002			5/15/2007	12:45	2.81E+02	1.80E+02	1.75E+02	8.20E-02	7.29E-01	9.24E-01	1.87E-01	4.80E+00	4.60E+00	9.57E-01	4.54E+00	4.51E+00	NA	NA	NA	
	003			7/25/2007	14:34	2.37E102	1.82E102	1.97E102	-4.43E-01	4.41E-01	5.29E-01	1.24E100	3.31E100	3.90E100	9.28E-03	3.75E100	4.16E100	NA	NA	NA	
	004			10/11/2007	11:17	1.15E+02	1.55E+02	1.72E+02	8.19E-01	8.90E-01	9.47E-01	-6.98E-01	2.97E+00	3.16E+00	-1.77E+00	3.33E+00	3.23E+00	NA	NA	NA	
	005			1/9/2008	12:46	2.15E+02	1.59E+02	1.71E+02	1.86E-01	7.08E-01	8.45E-01	7.74E-01	3.06E+00	3.56E+00	1.05E-01	3.20E+00	3.58E+00	NA	NA	NA	
	007			7/29/2008	14:17	2.38E+02	1.25E+02	1.92E+02	1.62E+00	4.37E-01	4.73E-01	-4.02E-01	2.01E+00	3.36E+00	-3.19E-01	1.96E+00	3.23E+00	NA	NA	NA	
	007			7/29/2008	14:17	NA	NA	NA	2.28E-03	2.21E-01	3.86E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-63-112	001	111.5	-99.2	5/15/2007	13:10	4.24E+02	1.95E+02	1.75E+02	-5.27E-02	7.50E-01	9.42E-01	2.58E+00	3.90E+00	3.59E+00	9.59E-01	3.72E+00	4.19E+00	-5.14E+00	1.34E+01	1.55E+01	MW-63-112
	002			7/25/2007	14:52	2.69E+02	1.83E+02	1.97E+02	6.32E-02	3.46E-01	3.99E-01	6.92E-01	4.14E+00	4.19E+00	-6.35E-01	3.94E+00	4.34E+00	NA	NA	NA	
	003			10/11/2007	13:45	2.78E102	1.62E102	1.72E102	-7.94E-02	6.73E-01	8.71E-01	-3.04E100	5.49E100	4.52E100	7.65E-01	3.50E100	4.15E100	NA	NA	NA	
	004			1/9/2008	10:20	4.69E+02	1.73E+02	1.72E+02	2.19E-01	5.07E-01	5.92E-01	3.90E-01	3.30E+00	3.34E+00	2.87E-01	3.56E+00	3.75E+00	NA	NA	NA	
	006			7/29/2008	14:20	2.07E+02	1.01E+02	1.63E+02	7.08E-01	5.39E-01	8.66E-01	6.61E-01	2.23E+00	3.89E+00	1.07E+00	2.46E+00	4.41E+00	NA	NA	NA	

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS															Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-63-121	001	121.0	-108.7	5/15/2007	13:42	3.11E+02	1.83E+02	1.75E+02	3.00E-01	7.97E-01	9.37E-01	6.30E-01	4.25E+00	4.20E+00	-1.19E+00	3.65E+00	3.87E+00	2.29E+00	1.52E+01	1.77E+01	MW-63-121
	002			7/25/2007	11:50	2.96E+02	1.82E+02	1.94E+02	3.19E-01	5.31E-01	5.93E-01	-1.31E+00	3.29E+00	3.46E+00	1.70E-01	3.46E+00	3.87E+00	NA	NA	NA	
	003			10/11/2007	13:51	4.62E+02	1.70E+02	1.74E+02	2.39E-01	6.25E-01	7.37E-01	2.48E+00	4.51E+00	4.94E+00	1.54E+00	4.00E+00	4.54E+00	NA	NA	NA	
	004			1/9/2008	10:42	5.40E+02	1.74E+02	1.71E+02	2.06E-02	4.70E-01	6.09E-01	2.54E+00	3.38E+00	4.15E+00	1.09E+00	3.41E+00	4.02E+00	NA	NA	NA	
	006			7/29/2008	14:30	3.44E+02	1.04E+02	1.61E+02	8.56E-01	1.46E-01	2.05E-01	2.86E-01	2.08E+00	3.57E+00	1.23E+00	2.30E+00	4.11E+00	NA	NA	NA	
	006			7/29/2008	14:30	NA	NA	NA	6.63E-01	3.83E-01	5.73E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-63-163	001	162.5	-150.2	5/15/2007	11:38	5.78E+02	2.10E+02	1.73E+02	-6.43E-02	6.50E-01	8.74E-01	-8.04E-01	2.84E+00	2.59E+00	9.51E-01	2.25E+00	2.64E+00	-9.58E-01	1.44E+01	1.73E+01	MW-63-163
	002			7/25/2007	12:13	4.79E+02	1.91E+02	1.96E+02	-7.20E-01	3.46E-01	6.26E-01	-3.18E+00	5.16E+00	4.39E+00	-4.54E-01	3.75E+00	3.99E+00	NA	NA	NA	
	003			10/11/2007	14:18	3.49E+02	1.65E+02	1.73E+02	7.93E-03	7.98E-01	9.60E-01	-4.46E-01	3.00E+00	3.28E+00	-1.91E-02	2.94E+00	3.30E+00	NA	NA	NA	
	004			1/9/2008	10:51	5.68E+02	1.77E+02	1.72E+02	3.19E-03	5.55E-01	7.17E-01	-4.52E-01	3.50E+00	3.89E+00	2.23E+00	6.11E+00	4.38E+00	NA	NA	NA	
	006			7/29/2008	14:56	4.48E+02	1.07E+02	1.63E+02	8.02E-01	3.27E-01	4.10E-01	-2.09E+00	2.34E+00	3.61E+00	9.03E-01	2.59E+00	4.48E+00	NA	NA	NA	
	006			7/29/2008	14:56	NA	NA	NA	-8.79E-02	2.50E-01	4.37E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-63-174	001	174.0	-161.7	5/15/2007	11:54	5.93E+02	2.12E+02	1.73E+02	2.64E-01	7.62E-01	9.04E-01	-6.91E-01	2.52E+00	2.70E+00	8.16E-03	2.49E+00	2.76E+00	1.30E+00	1.28E+01	1.51E+01	MW-63-174
	002			7/25/2007	12:00	5.28E+02	1.94E+02	1.97E+02	-2.78E-01	4.41E-01	6.59E-01	6.28E-01	3.98E+00	4.55E+00	-3.03E-01	3.45E+00	3.80E+00	NA	NA	NA	
	003			10/11/2007	14:22	3.70E+02	1.65E+02	1.72E+02	-2.85E-01	7.14E-01	9.39E-01	1.94E+00	2.90E+00	2.70E+00	-8.59E-01	2.56E+00	2.71E+00	NA	NA	NA	
	004			1/9/2008	10:45	6.23E+02	1.79E+02	1.72E+02	6.16E-01	6.95E-01	7.24E-01	-1.24E+00	3.14E+00	3.33E+00	1.48E+00	3.03E+00	3.77E+00	NA	NA	NA	
	006			7/29/2008	14:40	4.49E+02	1.40E+02	1.92E+02	2.79E+00	4.82E-01	3.52E-01	-3.76E-01	2.23E+00	3.71E+00	-1.72E+00	2.65E+00	3.79E+00	NA	NA	NA	
	006			7/29/2008	14:40	NA	NA	NA	6.56E-02	2.76E-01	4.80E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-65-48	001	43.3	26.4	1/4/2007	12:00	2.08E+02	1.83E+02	1.80E+02	0.00E+00	7.80E-01	8.60E-01	1.60E+00	3.60E+00	3.90E+00	-5.00E-01	3.00E+00	3.70E+00	-2.20E+00	6.30E+00	7.30E+00	MW-65-48
MW-65-80	001	71.4	-1.7	9/8/2006	9:40	3.29E+01	1.62E+02	1.74E+02	4.72E-01	9.80E-01	1.04E+00	-5.15E-01	1.99E+00	2.18E+00	-2.34E-01	1.81E+00	1.98E+00	NA	NA	NA	MW-65-80
	002			1/4/2007	12:35	1.83E+02	1.80E+02	1.80E+02	1.60E-01	7.80E-01	8.70E-01	-2.50E-01	2.22E+00	2.50E+00	-1.13E+00	2.31E+00	2.80E+00	-1.90E+00	6.60E+00	7.40E+00	
MW-66-21	001	14.1	0	7/30/2007	13:45	3.57E+03	2.91E+02	1.96E+02	1.79E+00	7.08E-01	2.08E+03	1.77E-01	3.07E+00	3.51E+00	2.21E+00	3.27E+00	4.20E+00	NA	NA	NA	MW-66-21
	002			10/15/2007	10:45	1.04E+03	2.24E+02	1.95E+02	2.42E+00	7.97E-01	5.30E-01	-8.32E-01	3.03E+00	2.74E+00	1.01E-01	2.79E+00	3.18E+00	1.48E+01	2.06E+01	2.28E+01	
	003			1/14/2008	11:33	8.18E+02	4.62E+02	4.16E+02	1.09E+00	8.95E-01	8.19E-01	1.68E+00	3.14E+00	3.77E+00	2.35E+00	3.86E+00	4.26E+00	-5.07E+00	2.12E+01	2.55E+01	
	005			7/29/2008	11:48	7.83E102	1.02E102	1.30E102	9.07E-01	3.56E-01	4.39E-01	-1.01E100	1.88E100	2.92E100	1.71E100	2.17E100	3.99E100	-6.26E100	1.66E101	2.99E101	
MW-66-36	001	33.6	-19.5	7/30/2007	12:49	9.10E+03	4.13E+02	1.94E+02	6.20E+00	1.19E+00	6.05E-01	-9.84E-01	2.67E+00	2.76E+00	-5.59E-01	2.90E+00	3.06E+00	NA	NA	NA	MW-66-36
	002			10/15/2007	10:16	8.95E+03	4.61E+02	1.92E+02	1.12E+01	1.61E+00	5.63E-01	0.00E+00	8.31E+00	4.32E+00	-2.92E-01	4.31E+00	4.68E+00	1.17E+01	1.88E+01	2.09E+01	
	003			1/14/2008	11:40	7.26E+03	1.01E+03	4.16E+02	1.51E+01	2.40E+00	8.34E-01	2.34E+00	3.38E+00	4.14E+00	-1.08E+00	3.78E+00	3.39E+00	7.19E+00	2.36E+01	2.71E+01	
	005			7/29/2008	12:05	5.01E+03	1.91E+02	1.30E+02	1.20E+01	1.06E+00	6.20E-01	2.07E-01	1.66E+00	2.82E+00	-1.05E+00	1.93E+00	3.00E+00	-1.00E+00	1.69E+01	2.98E+01	
MW-67-39	001	38.3	-25.8	8/31/2007	12:05	4.86E+03	4.34E+02	1.92E+02	1.86E+01	1.86E+00	4.73E-01	-1.93E-01	2.02E+00	2.24E+00	-9.45E-01	2.00E+00	2.09E+00	NA	NA	NA	MW-67-39
	002			10/1/2007	11:30	5.07E+03	3.75E+02	1.95E+02	2.71E+01	2.44E+00	6.21E-01	1.02E+01	4.11E+00	1.98E+00	3.69E-01	2.07E+00	2.39E+00	2.51E+00	1.68E+01	1.93E+01	
	003			1/11/2008	16:44	4.35E+03	8.03E+02	4.10E+02	2.59E+01	2.99E+00	7.54E-01	0.00E+00	4.94E+00	6.15E+00	1.77E+00	3.96E+00	4.75E+00	1.53E+01	2.31E+01	2.58E+01	
	004			2/25/2008	15:38	4.17E+03	8.28E+02	5.29E+02	2.05E+01	1.77E+00	6.97E-01	-1.15E+00	3.44E+00	3.73E+00	1.99E+00	4.39E+00	3.98E+00	-5.41E-01	2.26E+01	2.63E+01	
	005			7/28/2008	14:07	3.87E+03	1.72E+02	1.30E+02	1.37E+01	1.11E+00	3.97E-01	-1.03E+00	2.60E+00	3.42E+00	4.47E-01	2.15E+00	3.68E+00	6.34E+00	1.67E+01	2.88E+01	
MW-67-105	001	104.8	-92.3	8/31/2007	12:35	1.86E+03	5.16E+02	3.34E+02	1.11E+00	6.12E-01	5.26E-01	2.26E-01	2.00E+00	2.00E+00	-3.08E-01	1.68E+00	1.86E+00	NA	NA	NA	MW-67-105
	002			10/1/2007	11:40	2.64E+03	2.96E+02	1.95E+02	4.12E-01	8.28E-01	9.46E-01	0.00E+00	6.11E+00	3.77E+00	-4.57E-01	3.63E+00	3.95E+00	1.05E+01	1.58E+01	1.76E+01	
	003			1/11/2008	15:15	2.43E+03	6.42E+02	4.15E+02	7.58E-01	9.98E-01	1.07E+00	9.32E+00	5.13E+00	2.83E+00	7.44E-01	3.60E+00	3.70E+00	1.81E+01	2.42E+01	2.67E+01	
	004			2/25/2008	13:44	2.38E+03	6.89E+02	5.30E+02	1.13E+00	7.89E-01	8.12E-01	-1.27E+00	3.25E+00	3.38E+00	-4.79E-02	2.97E+00	3.25E+00	1.24E+01	1.74E+01	1.93E+01	
	005			7/28/2008	14:25	2.16E103	1.40E102	1.37E102	9.63E-01	3.54E-01	4.16E-01	4.17E-01	1.59E100	2.78E100	7.65E-01	1.51E100	2.78E100	7.25E100	1.65E101	2.85E101	
MW-67-173	001	172.3	-159.8	8/31/2007	13:04	1.05E+03	4.28E+02	3.37E+02	3.73E-01	3.77E-01	4.12E-01	-1.46E+00	3.56E+00	3.68E+00	1.19E-02	3.75E+00	4.15E+00	NA	NA	NA	MW-67-173
	002			10/1/2007	12:30	1.01E+03	2.25E+02	1.95E+02	1.48E-01	8.62E-01	1.07E+00	-1.31E+00	3.79E+00	4.01E+00	2.82E+00	3.25E+00	3.77E+00	4.12E+00	1.71E+01	1.96E+01	
	003			1/11/2008	13:35	6.95E+02	4.41E+02	4.11E+02	2.14E-01	8.33E-01	1.01E+00	5.82E+00	3.68E+00	2.90E+00	-1.79E+00	2.58E+00	1.82E+00	1.36E+01	2.39E+01	2.67E+01	
	004			2/25/2008	14:00	9.51E+02	5.51E+02	5.30E+02	-4.12E-01	6.06E-01	7.76E-01	6.65E-01	2.82E+00	3.23E+00	-3.63E-01	2.54E+00	2.70E+00	-5.95E+00	2.37E+01	2.82E+01	
	005			7/28/2008	14:42	9.12E+02	1.09E+02	1.36E+02	1.05E-01	2.66E-01	4.85E-01	-1.22E+00	2.06E+00	3.19E+00	-3.63E-01	2.14E+00	3.49E+00	5.88E+00	1.64E+01	2.84E+01	
MW-67-219	001	218.8	-206.3	8/31/2007	13:43	1.25E+03	4.46E+02	3.30E+02	3.27E-02	3.00E-01	3.47E-01	-1.58E-01	3.04E+00	3.32E+00	9.02E-01	3.09E+00	3.68E+00	NA	NA	NA	MW-67-219
	002			10/1/2007	12:53	9.46E102	2.22E102	1.95E102	-2.27E-01	7.50E-01	1.03E100	1.48E-01	2.60E100	2.90E100	1.38E-01	2.37E100	2.65E100	1.21E101	2.64E101	2.99E101	
	003			1/11/2008	12:05	1.28E+03	5.18E+02	4.12E+02	4.22E-01	8.67E-01	9.91E-01	4.25E+00	3.98E+00	2.09E+00	-1.01E+00	3.11E+00	3.18E+00	9.12E+00	2.27E+01	2.58E+01	
	004			2/25/2008	11:43	1.23E+03	5.81E+02	5.31E+02	-7.61E-02	4.93E-01	6.12E-01	-1.33E+00	3.03E+00	3.18E+00	1.08E+00	3.15E+00	3.78E+00	1.23E+01	1.81E+01	2.03E+01	

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS														Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)		
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-67-219	005			7/28/2008	11:00	1.17E+03	1.16E+02	1.36E+02	-7.49E-02	2.34E-01	4.85E-01	-2.91E-01	1.98E+00	3.33E+00	-2.64E-01	1.92E+00	3.18E+00	5.99E+00	1.68E+01	2.90E+01	MW-67-219
MW-67-276	001	275.3	-262.8	8/31/2007	12:20	6.79E+02	3.83E+02	3.41E+02	-3.34E-01	3.57E-01	4.29E-01	1.36E+00	3.82E+00	4.02E+00	-9.09E-01	3.75E+00	4.00E+00	NA	NA	NA	MW-67-276
	002			10/1/2007	13:04	1.11E+03	2.30E+02	1.96E+02	3.82E-02	8.36E-01	9.91E-01	-3.32E+00	3.63E+00	3.34E+00	-3.17E-01	3.51E+00	3.31E+00	5.04E-01	1.59E+01	1.84E+01	
	003			1/11/2008	13:00	1.03E+03	4.89E+02	4.14E+02	9.99E-02	9.50E-01	1.17E+00	4.55E+00	3.03E+00	3.32E+00	-4.84E-01	3.36E+00	3.01E+00	8.92E+00	2.22E+01	2.52E+01	
	004			2/25/2008	11:48	1.07E+03	5.64E+02	5.29E+02	4.43E-01	7.06E-01	7.88E-01	2.00E+00	3.45E+00	4.21E+00	1.79E+00	4.11E+00	4.33E+00	1.08E+01	1.89E+01	2.11E+01	
	005			7/28/2008	11:09	1.16E+03	1.16E+02	1.36E+02	-5.05E-02	2.76E-01	5.47E-01	-8.94E-01	1.98E+00	3.18E+00	5.92E-01	1.97E+00	3.45E+00	7.55E+00	1.62E+01	2.77E+01	
MW-67-323	001	322.3	-309.8	8/31/2007	13:20	3.13E+02	1.55E+02	1.57E+02	-2.41E-01	3.06E-01	3.74E-01	1.14E+00	3.71E+00	4.33E+00	1.29E-01	3.76E+00	4.32E+00	NA	NA	NA	MW-67-323
	002			10/1/2007	14:08	1.29E+03	2.40E+02	1.96E+02	5.67E-01	8.58E-01	9.37E-01	-5.77E-01	3.04E+00	3.24E+00	-6.19E-01	3.35E+00	3.58E+00	5.25E-01	1.65E+01	1.92E+01	
	003			1/11/2008	13:52	3.74E+02	1.91E+02	1.96E+02	3.98E-01	8.15E-01	9.31E-01	3.85E+00	4.10E+00	3.69E+00	1.69E+00	3.33E+00	3.76E+00	1.54E+00	2.21E+01	2.59E+01	
	004			2/25/2008	11:59	3.72E+02	2.75E+02	2.87E+02	3.61E-01	7.60E-01	8.62E-01	-2.08E-01	2.97E+00	3.32E+00	1.29E+00	3.50E+00	4.18E+00	6.85E+00	1.88E+01	2.13E+01	
	005			7/28/2008	11:25	3.38E+02	9.08E+01	1.36E+02	-2.38E-01	3.66E-01	7.29E-01	8.29E-01	2.30E+00	3.99E+00	2.24E-01	2.04E+00	3.46E+00	-5.98E+00	1.59E+01	2.86E+01	
MW-67-340	001	339.8	-327.3	8/31/2007	12:54	3.69E+02	1.61E+02	1.60E+02	1.69E-01	2.71E-01	3.04E-01	6.52E-01	4.61E+00	5.13E+00	4.53E+00	5.43E+00	5.20E+00	NA	NA	NA	MW-67-340
	002			10/1/2007	14:00	3.90E+02	1.92E+02	1.96E+02	1.42E-01	3.71E-01	4.20E-01	7.29E-01	3.46E+00	3.96E+00	-1.22E+00	3.33E+00	3.50E+00	3.89E+00	1.54E+01	1.76E+01	
	003			1/11/2008	13:15	4.92E+02	1.95E+02	1.95E+02	1.07E-01	8.25E-01	1.03E+00	5.82E+00	3.74E+00	2.33E+00	3.88E-02	2.12E+00	2.37E+00	-8.32E+00	2.24E+01	2.62E+01	
	004			2/25/2008	12:00	4.78E+02	2.82E+02	2.86E+02	-2.17E-01	5.53E-01	6.94E-01	-1.58E+00	3.99E+00	3.94E+00	-7.62E-01	3.19E+00	3.43E+00	5.72E+00	1.83E+01	2.09E+01	
	005			7/28/2008	11:18	5.11E+02	9.36E+01	1.30E+02	-3.39E-01	2.28E-01	5.49E-01	3.13E-01	2.21E+00	3.81E+00	9.03E-01	2.25E+00	3.68E+00	-6.94E+00	1.57E+01	2.78E+01	
MW-107[7]	004	29.1	111.0	9/28/2005	12:00	3.09E102	3.87E102	4.20E102	NA	NA	NA	3.86E100	1.16E101	8.53E100	NA	NA	NA	NA	NA	NA	MW-107[7]
	001			12/8/2005	11:15	1.28E+02	4.11E+02	4.54E+02	7.65E+00	1.53E+01	1.33E+01	2.55E+00	7.64E+00	5.59E+00	4.11E+00	1.23E+01	8.97E+00	NA	NA	NA	
	002			4/18/2006	11:15	1.27E+02	4.11E+02	4.51E+02	0.00E+00	3.90E-01	4.40E-01	2.65E+00	7.94E+00	5.62E+00	4.36E+00	1.31E+01	9.21E+00	NA	NA	NA	
	003			6/6/2006	13:30	1.05E+02	1.53E+02	1.56E+02	-2.07E-01	5.43E-01	7.13E-01	1.65E+00	8.31E+00	9.24E+00	-3.66E-01	8.36E+00	9.05E+00	NA	NA	NA	
	005	32.7	110.1	7/23/2007	14:18	8.92E+01	1.52E+02	1.70E+02	1.66E-01	5.19E-01	5.87E-01	8.13E-01	2.73E+00	1.60E+00	1.03E-01	1.41E+00	1.60E+00	NA	NA	NA	
	007			5/30/2008	15:25	4.62E+01	9.02E+01	1.58E+02	6.62E-02	5.51E-01	9.60E-01	1.22E+00	1.88E+00	3.36E+00	5.48E-01	2.20E+00	3.57E+00	NA	NA	NA	
MW-108[7]	003	8.3	6.2	9/29/2005	12:00	3.32E+02	3.84E+02	4.20E+02	NA	NA	NA	3.23E+00	9.70E+00	7.39E+00	3.21E+00	9.61E+00	7.81E+00	NA	NA	NA	MW-108[7]
	004			11/3/2005	12:00	1.97E+02	4.26E+02	4.76E+02	NA	NA	NA	3.41E+00	1.02E+01	7.53E+00	2.65E+00	7.95E+00	6.39E+00	NA	NA	NA	
	002			5/13/2006	10:53	2.78E+02	1.82E+02	1.68E+02	6.89E-01	8.26E-01	8.08E-01	3.12E+00	8.86E+00	1.05E+01	-1.45E-01	1.23E+01	1.34E+01	NA	NA	NA	
MW-109	003	8.5	6.1	9/29/2005	12:00	1.54E+02	3.81E+02	4.20E+02	NA	NA	NA	3.74E+00	1.12E+01	8.45E+00	3.19E+00	9.57E+00	7.88E+00	NA	NA	NA	MW-109
	004			11/3/2005	12:00	1.01E+02	4.23E+02	4.76E+02	NA	NA	NA	3.59E+00	1.08E+01	7.89E+00	2.59E+00	7.78E+00	6.26E+00	NA	NA	NA	
	002			5/13/2006	10:10	3.39E102	1.89E102	1.70E102	2.98E-01	8.24E-01	9.27E-01	2.00E-01	5.68E100	6.24E100	-2.50E100	6.12E100	6.08E100	NA	NA	NA	
MW-111	001	14.1	4.8	9/29/2005	10:00	2.15E+05	2.26E+03	4.20E+02	NA	NA	NA	4.48E+00	1.34E+01	1.02E+01	1.81E+00	5.42E+00	5.57E+00	NA	NA	NA	MW-111
	001			9/29/2005	10:00	2.05E+05	2.56E+04	6.24E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	002			10/14/2005	10:00	6.81E+03	4.73E+03	6.41E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	003			10/21/2005	10:00	2.84E+05	3.05E+04	6.41E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	004			10/28/2005	8:30	2.18E+05	6.54E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	005			11/4/2005	9:00	3.02E+05	9.06E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	006			11/22/2005	10:00	1.80E105	5.40E103	7.00E102	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	007			12/2/2005	10:15	1.25E+05	3.75E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	008			12/8/2005	16:50	2.71E+05	8.13E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	009			12/15/2005	11:00	2.96E+05	8.88E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	010			12/19/2005	9:45	1.92E+05	5.76E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	011			12/29/2005	10:00	2.12E+05	6.36E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	012			1/6/2006	10:45	1.13E+05	3.39E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	013			1/13/2006	10:30	1.99E105	5.97E103	7.00E102	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	014			1/20/2006	9:30	1.19E+05	3.57E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	015			1/27/2006	10:05	5.78E+05	1.73E+02	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	016			2/3/2006	12:20	2.95E+05	3.09E+04	6.33E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	017			2/7/2006	16:10	2.38E+05	2.78E+04	6.37E+02	1.17E+00	6.03E-01	6.31E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	018			2/16/2006	13:40	2.94E+05	3.09E+04	6.36E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	019			3/3/2006	9:00	2.36E+05	7.08E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS															Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MW-111	020			4/7/2006	9:50	1.45E+05	4.35E+03	7.00E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	MW-111
	021			5/17/2006	14:05	4.31E+04	6.51E+03	9.10E+02	2.49E+00	1.40E+00	1.24E+00	-2.32E-01	1.34E+01	1.51E+01	4.25E+00	1.30E+01	1.49E+01	NA	NA	NA	
	022			6/23/2006	8:35	2.62E+05	3.92E+04	2.35E+03	6.23E-01	1.07E+00	1.32E+00	-4.18E+00	1.40E+01	1.46E+01	-1.60E-01	1.38E+01	1.52E+01	NA	NA	NA	
	023			9/21/2006	10:25	1.59E+05	2.07E+04	1.42E+03	8.79E-01	1.25E+00	1.33E+00	9.50E-02	1.13E+00	1.26E+00	-6.26E-02	1.15E+00	1.24E+00	NA	NA	NA	
	024	16.5	2.4	6/15/2007	14:17	1.19E+05	3.69E+03	3.52E+02	9.74E-01	6.30E-01	5.76E-01	-7.53E-01	3.27E+00	3.00E+00	1.21E-01	2.79E+00	3.17E+00	6.34E+00	1.26E+01	1.43E+01	
	025			8/3/2007	9:53	9.88E+04	2.93E+03	3.68E+02	9.74E-01	6.73E-01	6.27E-01	4.24E-01	2.75E+00	3.15E+00	3.95E-01	2.60E+00	3.02E+00	NA	NA	NA	
	026			1/28/2008	11:38	4.77E+04	1.77E+03	2.97E+02	2.56E+00	9.45E-01	6.18E-01	2.60E+00	4.05E+00	3.90E+00	-6.32E-01	2.55E+00	2.63E+00	1.33E+01	1.58E+01	1.73E+01	
	027			9/4/2008	14:00	7.39E+04	1.89E+03	5.47E+02	1.02E+00	3.62E-01	4.21E-01	-8.16E-01	2.22E+00	3.61E+01	NA	NA	NA	NA	NA	NA	
U3-4D	007	21.7	-14.7	10/16/2005	12:00	3.70E+02	4.05E+02	4.38E+02	NA	NA	NA	4.72E+00	1.41E+01	1.01E+01	3.72E+00	1.12E+01	8.50E+00	NA	NA	NA	U3-4D
	008			10/21/2005	12:00	3.99E+02	3.90E+02	4.27E+02	NA	NA	NA	3.11E+00	9.34E+00	6.58E+00	2.98E+00	8.95E+00	6.58E+00	NA	NA	NA	
	009			10/28/2005	12:00	4.05E+02	4.29E+02	4.72E+02	NA	NA	NA	3.91E+00	1.17E+01	8.54E+00	4.36E+00	1.31E+01	9.84E+00	NA	NA	NA	
	010			11/4/2008	12:00	1.18E+02	4.23E+02	4.76E+02	NA	NA	NA	3.17E+00	9.51E+00	6.90E+00	3.34E+00	1.00E+01	7.54E+00	NA	NA	NA	
	011			11/10/2008	12:00	3.16E+02	4.14E+02	4.61E+02	NA	NA	NA	4.10E+00	1.23E+01	8.95E+00	4.07E+00	1.22E+01	9.41E+00	NA	NA	NA	
	012			11/18/2005	12:00	1.10E+02	4.35E+02	4.81E+02	NA	NA	NA	3.04E+00	9.13E+00	6.67E+00	2.04E+00	6.11E+00	4.97E+00	NA	NA	NA	
	013			12/2/2005	12:00	2.73E+02	4.23E+02	4.64E+02	NA	NA	NA	2.97E+00	8.92E+00	6.62E+00	2.00E+00	6.01E+00	5.05E+00	NA	NA	NA	
	001			12/15/2005	13:10	3.99E+02	4.32E+02	4.70E+02	NA	NA	NA	2.73E+00	8.20E+00	6.05E+00	2.88E+00	8.64E+00	6.66E+00	NA	NA	NA	
	002			12/30/2005	9:25	4.42E+02	4.35E+02	4.71E+02	NA	NA	NA	3.53E+00	1.06E+01	7.76E+00	3.96E+00	1.19E+01	8.99E+00	NA	NA	NA	
	003			1/12/2006	11:00	5.73E102	4.38E102	4.72E102	NA	NA	NA	3.29E100	9.86E100	7.12E100	3.42E100	1.03E101	7.75E100	NA	NA	NA	
	004			2/15/2006	13:45	2.71E+02	9.39E+02	6.36E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	006			4/26/2006	14:20	5.75E+02	2.19E+02	1.87E+02	-1.48E-01	6.11E-01	7.91E-01	-3.01E-01	8.38E+00	9.11E+00	-3.10E+00	8.21E+00	8.71E+00	NA	NA	NA	
	014			6/22/2006	10:20	7.10E+02	2.15E+02	1.68E+02	1.27E-01	5.73E-01	7.39E-01	-2.41E+00	1.15E+01	1.21E+01	-2.08E+00	8.42E+00	8.34E+00	NA	NA	NA	
	015	25.6	-10.8	2/1/2008	12:40	3.75E+02	1.36E+02	1.35E+02	-1.78E-01	7.83E-01	9.77E-01	2.83E-01	2.69E+00	3.10E+00	1.41E+00	3.26E+00	3.97E+00	NA	NA	NA	
	017			7/28/2008	16:46	4.66E+02	2.50E+02	3.79E+02	-3.57E-01	4.95E-01	9.81E-01	2.89E-01	2.08E+00	3.62E+00	4.78E-01	2.36E+00	3.69E+00	NA	NA	NA	
U3-T1[7]	007	5.7	2.8	10/7/2005	12:00	1.59E+03	4.20E+02	4.15E+02	NA	NA	NA	2.71E+00	8.14E+00	6.09E+00	2.77E+00	8.30E+00	6.55E+00	NA	NA	NA	U3-T1[7]
	008			10/21/2005	12:00	3.09E+02	3.87E+02	4.27E+02	NA	NA	NA	3.92E+00	1.18E+01	8.66E+00	3.87E+00	1.16E+01	9.03E+00	NA	NA	NA	
	009			10/28/2005	12:00	3.40E+02	4.29E+02	4.72E+02	NA	NA	NA	3.55E+00	1.06E+01	8.06E+00	5.35E+00	1.61E+01	1.23E+01	NA	NA	NA	
	010			11/4/2005	12:00	1.97E+02	4.29E+02	4.76E+02	NA	NA	NA	4.01E+00	1.20E+01	8.86E+00	3.90E+00	1.17E+01	9.13E+00	NA	NA	NA	
	011			11/10/2005	12:00	5.63E+02	4.26E+02	4.61E+02	NA	NA	NA	3.11E+00	9.32E+00	6.89E+00	2.97E+00	8.92E+00	6.99E+00	NA	NA	NA	
	012			11/18/2005	12:00	0.00E+00	4.29E+02	4.81E+02	NA	NA	NA	3.90E+00	1.17E+01	8.39E+00	3.40E+00	1.02E+01	7.71E+00	NA	NA	NA	
	013			12/2/2005	12:00	4.98E+02	4.29E+02	4.64E+02	NA	NA	NA	2.80E+00	8.39E+00	6.23E+00	2.94E+00	8.83E+00	6.86E+00	NA	NA	NA	
	001			12/15/2005	13:15	3.40E+02	4.29E+02	4.70E+02	NA	NA	NA	2.53E+00	7.60E+00	5.63E+00	2.89E+00	8.67E+00	6.65E+00	NA	NA	NA	
	002			12/30/2005	10:40	5.29E+02	4.38E+02	4.71E+02	NA	NA	NA	4.02E+00	1.21E+01	8.71E+00	4.07E+00	1.22E+01	9.17E+00	NA	NA	NA	
	003			1/12/2006	9:50	7.87E+02	4.47E+02	4.72E+02	NA	NA	NA	3.10E+00	9.31E+00	6.88E+00	2.83E+00	8.49E+00	6.70E+00	NA	NA	NA	
	004			2/15/2006	13:15	8.35E+02	1.65E+03	6.36E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	005			3/16/2006	11:50	1.26E+03	2.79E+02	1.85E+02	6.55E-01	8.43E-01	8.29E-01	1.05E+00	5.49E+00	6.18E+00	-1.81E-01	5.63E+00	6.14E+00	NA	NA	NA	
	006			5/26/2006	13:30	7.32E+02	2.33E+02	1.89E+02	1.27E+00	1.02E+00	1.01E+00	1.21E+00	8.34E+00	9.42E+00	5.99E+00	8.98E+00	1.15E+01	NA	NA	NA	
	014			7/12/2006	12:50	6.84E+02	2.36E+02	1.98E+02	3.36E-01	1.36E+00	1.44E+00	1.15E+00	1.13E+01	1.18E+01	-1.14E+00	1.18E+01	1.26E+01	NA	NA	NA	
	015			8/15/2006	11:30	7.66E+02	2.25E+02	1.73E+02	NA	NA	NA	-4.04E+00	6.82E+00	6.33E+00	2.15E+00	6.84E+00	8.29E+00	NA	NA	NA	
	016			6/12/2007	12:54	5.06E+02	4.25E+02	4.39E+02	6.25E-01	8.75E-01	9.54E-01	-8.51E-02	2.94E+00	2.22E+00	7.17E-01	2.00E+00	2.33E+00	-1.46E+00	1.40E+01	1.63E+01	
	017			8/1/2007	13:20	4.90E+02	3.38E+02	2.73E+02	5.21E-02	5.13E-01	6.47E-01	8.49E-01	3.57E+00	4.15E+00	2.88E-01	3.42E+00	3.92E+00	NA	NA	NA	
	018			10/22/2007	16:13	5.30E+02	4.01E+02	4.01E+02	3.41E-01	5.49E-01	6.09E-01	-1.08E+00	3.44E+00	3.64E+00	-1.34E+00	3.52E+00	3.68E+00	NA	NA	NA	
	019			1/22/2008	16:11	7.29E+02	3.27E+02	2.96E+02	6.25E-01	7.25E-01	7.69E-01	1.21E+00	3.14E+00	3.76E+00	-1.79E-01	3.56E+00	3.93E+00	8.87E+00	1.85E+01	2.09E+01	
	019-B[8]			1/22/2008	16:11	2.54E+01	1.68E+02	1.94E+02	1.62E-01	6.14E-01	7.38E-01	7.29E-01	2.57E+00	3.04E+00	-2.53E-01	3.14E+00	3.46E+00	-1.42E+00	1.82E+01	2.15E+01	
	019-D[8]			1/22/2008	16:11	6.05E+02	3.15E+02	2.97E+02	6.43E-01	7.41E-01	7.79E-01	1.11E+00	2.75E+00	3.21E+00	2.38E-01	2.51E+00	2.75E+00	1.14E+01	1.65E+01	1.84E+01	
	019-S[8]			1/22/2008	16:11	2.38E+03	4.62E+02	2.97E+02	1.07E+01	1.68E+00	6.89E-01	1.73E+02	2.01E+01	3.50E+00	-2.33E-01	3.02E+00	3.34E+00	2.61E+02	3.20E+01	2.00E+01	
	021			7/23/2008	11:16	5.56E+02	2.58E+02	3.79E+02	6.40E-01	5.19E-01	8.37E-01	2.41E+00	2.24E+00	4.18E+00	6.54E-01	2.44E+00	4.01E+00	NA	NA	NA	
U3-T2[7]	012	5.7	2.6	10/7/2005	12:00	7.03E+02	3.93E+02	4.15E+02	NA	NA	NA	3.67E+00	1.10E+01	8.06E+00	4.13E+00	1.24E+01	9.39E+00	NA	NA	NA	U3-T2[7]

IPEC00201791

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS															Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
U3-T2[7]	013			10/21/2005	12:00	1.47E+03	3.63E+02	4.27E+02	NA	NA	NA	3.33E+00	1.00E+01	7.23E+00	3.00E+00	9.00E+00	6.90E+00	NA	NA	NA	U3-T2[7]
	014			10/28/2005	12:00	1.28E+03	4.56E+02	4.72E+02	NA	NA	NA	3.44E+00	1.03E+01	7.67E+00	4.28E+00	1.28E+01	9.89E+00	NA	NA	NA	
	015			11/4/2005	12:00	1.19E+03	4.59E+02	4.76E+02	NA	NA	NA	3.41E+00	1.02E+01	7.53E+00	3.86E+00	1.16E+01	8.81E+00	NA	NA	NA	
	016			11/10/2005	12:00	1.64E+03	4.59E+02	4.61E+02	NA	NA	NA	3.81E+00	1.14E+01	8.34E+00	3.98E+00	1.19E+01	9.09E+00	NA	NA	NA	
	017			11/18/2005	12:00	1.13E+03	4.65E+02	4.81E+02	NA	NA	NA	3.97E+00	1.19E+01	8.70E+00	4.15E+00	1.25E+01	9.55E+00	NA	NA	NA	
	018			12/2/2005	12:00	1.33E+03	4.56E+02	4.64E+02	NA	NA	NA	2.31E+00	6.92E+00	5.23E+00	2.58E+00	7.74E+00	6.11E+00	NA	NA	NA	
	001			12/15/2005	13:30	1.29E+03	4.62E+02	4.70E+02	NA	NA	NA	2.77E+00	8.30E+00	6.09E+00	2.85E+00	8.55E+00	6.57E+00	NA	NA	NA	
	002			12/30/2005	10:50	1.69E+03	4.74E+02	4.71E+02	NA	NA	NA	3.81E+00	1.14E+01	8.46E+00	3.49E+00	1.05E+01	8.31E+00	NA	NA	NA	
	003			1/6/2006	8:45	2.42E+03	4.92E+02	4.66E+02	NA	NA	NA	2.85E+00	8.57E+00	6.56E+00	4.04E+00	1.21E+01	9.38E+00	NA	NA	NA	
	004			1/13/2006	13:20	1.78E+03	4.77E+02	4.72E+02	NA	NA	NA	4.01E+00	1.20E+01	8.74E+00	3.41E+00	1.02E+01	7.94E+00	NA	NA	NA	
	005			1/20/2006	11:00	1.75E+03	4.56E+02	4.61E+02	NA	NA	NA	3.40E+00	1.02E+01	7.71E+00	3.27E+00	9.82E+00	7.99E+00	NA	NA	NA	
	006			1/25/2006	11:10	2.32E+03	4.86E+02	4.61E+02	NA	NA	NA	3.96E+00	1.19E+01	8.77E+00	3.17E+00	9.50E+00	7.64E+00	NA	NA	NA	
	007			2/1/2006	11:15	2.13E+03	4.80E+02	4.60E+02	NA	NA	NA	3.17E+00	9.51E+00	7.02E+00	3.47E+00	1.04E+01	7.99E+00	NA	NA	NA	
	009			2/17/2006	9:20	1.92E+03	2.50E+03	6.36E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	010			3/16/2006	12:00	1.69E+03	3.36E+02	2.04E+02	5.87E-01	9.21E-01	1.00E+00	-7.43E-01	6.36E+00	6.83E+00	-1.22E-01	6.33E+00	6.88E+00	NA	NA	NA	
	011			5/26/2006	13:15	1.90E+03	3.86E+02	2.48E+02	1.49E+00	1.11E+00	1.01E+00	1.64E+00	1.01E+01	1.22E+01	5.67E+00	9.40E+00	1.25E+01	NA	NA	NA	
	019			7/12/2006	12:25	1.83E+03	3.78E+02	2.54E+02	7.24E-01	1.72E+00	1.80E+00	2.58E+00	6.90E+00	8.07E+00	1.30E+00	6.69E+00	7.74E+00	NA	NA	NA	
	020			8/15/2006	10:30	1.58E+03	7.79E+02	7.72E+02	NA	NA	NA	-8.87E-01	7.17E+00	7.64E+00	3.29E+00	9.10E+00	1.14E+01	NA	NA	NA	
	021			6/12/2007	9:25	1.45E+03	5.19E+02	4.36E+02	-3.89E-01	7.05E-01	9.59E-01	2.03E-01	2.29E+00	2.54E+00	-1.00E-01	2.42E+00	2.74E+00	5.88E+00	1.39E+01	1.57E+01	
	022			8/1/2007	14:14	1.25E+03	4.62E+02	2.55E+02	-4.84E-02	5.37E-01	7.11E-01	-1.75E+00	3.23E+00	3.20E+00	1.99E-02	3.54E+00	4.00E+00	NA	NA	NA	
	023			10/22/2007	15:07	1.17E+03	4.76E+02	4.02E+02	2.36E-01	5.28E-01	6.08E-01	-7.13E-02	2.82E+00	3.11E+00	2.53E+00	3.50E+02	3.81E+00	NA	NA	NA	
	024			1/22/2008	16:16	1.33E+03	3.83E+02	2.97E+02	4.31E-01	8.54E-01	9.63E-01	7.39E-01	2.97E+00	3.39E+00	-1.14E+00	3.39E+00	2.86E+00	2.78E+00	1.62E+01	1.89E+01	
	026			7/23/2008	13:40	9.97E+02	2.85E+02	3.64E+02	7.16E-01	3.31E-01	4.56E-01	3.57E-02	1.72E+00	2.93E+00	-1.02E+00	2.44E+00	3.39E+00	NA	NA	NA	
	026			7/23/2008	13:40	NA	NA	NA	5.90E-01	5.19E-01	8.41E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
U1-CSS	001	14.0	6.1	1/30/2007	11:45	1.76E+03	6.00E+02	5.70E+02	1.95E+01	2.19E+00	1.70E+00	7.00E-01	1.32E+00	1.40E+00	-3.20E-01	1.38E+00	1.60E+00	1.64E+01	2.67E+01	2.90E+01	U1-CSS
	002			2/27/2007	11:24	4.32E+03	6.90E+02	5.70E+02	1.38E+01	2.31E+00	2.10E+00	1.11E+00	1.95E+00	2.10E+00	7.00E-01	1.95E+00	2.20E+00	-1.30E+00	2.55E+01	2.90E+01	
	003			6/13/2007	11:39	1.53E+03	5.25E+02	4.35E+02	1.45E+01	1.91E+00	6.24E-01	8.50E-01	3.57E+00	4.15E+00	2.82E+00	4.28E+00	4.93E+00	4.42E+00	1.95E+01	2.22E+01	
	004			8/6/2007	15:55	2.80E+03	2.81E+02	1.95E+02	2.68E+01	2.33E+00	5.71E-01	2.53E+00	4.30E+00	4.61E+00	2.48E+00	6.84E+00	4.17E+00	NA	NA	NA	
	005			1/15/2008	14:54	4.95E+02	2.04E+02	1.76E+02	7.73E+00	1.31E+00	6.91E-01	2.85E+00	6.56E+00	3.36E+00	-6.88E-02	3.33E+00	3.71E+00	NA	NA	NA	
	007			5/12/2008	14:05	6.88E+02	1.35E+02	1.42E+02	4.83E+00	8.35E-01	9.25E-01	2.59E+00	2.30E+00	4.25E+00	3.09E-01	2.58E+00	3.96E+00	-2.18E+00	1.19E+01	2.08E+01	
	008			9/8/2008	10:24	1.45E+03	3.77E+02	4.98E+02	9.38E+00	9.40E-01	5.43E-01	1.90E+00	2.07E+00	3.76E+00	NA	NA	NA	NA	NA	NA	
LAF-002	001	NA	-22.3	6/6/2006	12:47	3.98E+01	3.60E+02	6.98E+02	1.38E+00	1.85E+00	1.93E+00	-3.88E+00	1.53E+00	1.59E+00	-2.24E+00	1.25E+01	1.34E+01	-2.84E-01	2.13E+01	2.34E+01	LAF-002
	001			6/6/2006	12:47	5.20E+01	1.71E+02	1.83E+02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	003			9/19/2006	13:14	-4.71E+01	1.50E+02	1.70E+02	-5.08E-01	8.90E-01	1.07E+00	6.45E-02	9.05E+00	1.01E+00	-2.76E+00	6.35E+00	4.99E+00	NA	NA	NA	
	004			12/4/2006	13:38	-1.20E+01	1.62E+02	1.60E+02	-1.20E-01	7.80E-01	8.50E-01	NA	NA	NA	9.00E-01	5.40E+00	6.30E+00	-2.50E+00	7.20E+00	8.10E+00	
	005			3/7/2007	14:45	-8.30E+01	1.56E+02	1.60E+02	8.20E-01	1.50E+00	1.60E+00	3.10E+00	4.80E+00	5.10E+00	-1.20E+00	5.40E+00	7.30E+00	NA	NA	NA	
	006			6/7/2007	13:18	-6.85E+00	1.33E+02	1.54E+02	3.19E-01	6.02E-01	6.79E-01	7.80E-01	2.63E+00	3.04E+00	6.55E-01	2.60E+00	3.04E+00	NA	NA	NA	
	007			10/9/2007	9:35	7.46E+01	1.37E+02	1.55E+02	4.43E-01	4.98E-01	5.18E-01	-5.45E-01	2.10E+00	1.69E+00	-1.44E+00	1.78E+00	1.39E+00	NA	NA	NA	
	008			12/4/2007	10:50	9.00E+01	1.46E+02	1.62E+02	4.89E-01	6.20E-01	6.62E-01	-6.91E-01	4.59E+00	4.37E+00	-2.35E+00	3.72E+00	3.39E+00	NA	NA	NA	
RW-1	001	107.5	-30.0	10/25/2006	11:37	6.41E+04	4.88E+03	8.52E+02	-8.44E-01	1.29E+00	1.52E+00	9.50E-01	4.75E+00	5.45E+00	8.01E-01	4.62E+00	5.32E+00	NA	NA	NA	RW-1
	002			10/25/2006	14:15	2.95E+04	2.28E+03	5.85E+02	3.10E-01	8.79E-01	9.23E-01	1.99E+00	5.23E+00	5.98E+00	4.31E-01	4.74E+00	5.22E+00	NA	NA	NA	
	003			10/31/2006	12:27	1.07E+05	8.06E+03	1.10E+03	-3.70E-01	9.51E-01	1.09E+00	7.18E-01	4.23E+00	4.71E+00	7.34E-01	3.04E+00	3.61E+00	NA	NA	NA	
	004			10/31/2006	15:55	2.63E+04	2.04E+03	5.51E+02	-1.06E+00	1.15E+00	1.39E+00	-2.26E-01	3.86E+00	3.99E+00	-5.22E-03	2.86E+00	3.21E+00	NA	NA	NA	
	005			10/31/2006	20:00	1.89E+04	1.49E+03	4.73E+02	9.06E-01	1.15E+00	1.14E+00	5.93E-01	4.51E+00	5.21E+00	1.65E+00	5.31E+00	6.60E+00	NA	NA	NA	
	006			11/1/2006	12:00	1.84E+04	1.45E+03	4.66E+02	3.64E-01	1.03E+00	1.08E+00	-3.39E+00	4.14E+00	3.90E+00	-5.25E-01	4.01E+00	4.19E+00	NA	NA	NA	
	007			11/2/2006	12:00	2.40E+04	2.13E+03	1.00E+03	1.50E-01	6.00E-01	6.70E-01	1.12E+00	2.37E+00	2.60E+00	-8.50E-01	2.37E+00	2.90E+00	NA	NA	NA	
	008			11/3/2006	9:00	3.06E+04	2.34E+03	1.00E+03	4.80E-01	7.20E-01	7.80E-01	-1.05E+00	2.19E+00	2.60E+00	8.20E-01	2.40E+00	2.70E+00	NA	NA	NA	
MH-5[9]	001	NA	NA	6/29/2007	12:15	1.41E+03	2.33E+02	1.87E+02	-3.26E-01	6.21E-01	9.20E-01	-9.57E-01	3.40E+00	3.60E+00	6.39E-02	3.13E+00	3.49E+00	NA	NA	NA	MH-5[9]

IPEC00201792

TABLE 5
HISTORIC GROUNDWATER ANALYTICAL RESULTS
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	SAMPLE ID	SAMPLE ZONE CENTER, depth ft below top of casing[2]	SAMPLE ZONE CENTER, elevation ft msl[2]	SAMPLE COLLECTION		ANALYSIS RESULTS														Well ID[1]
						TRITIUM (pCi/L)			Sr-90 (pCi/L)			Cs-137 (pCi/L)			Co-60 (pCi/L)			Ni-63 (pCi/L)			
				Date	Time	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	Result	Std. Dev.	MDC	
MII-5[9]	002			8/10/2007	15:15	1.17E+03	5.21E+02	4.56E+02	3.17E-02	7.84E-01	9.38E-01	-5.40E-01	3.17E+00	2.87E+00	-8.50E-01	2.84E+00	2.93E+00	NA	NA	NA	MII-5[9]
	003			10/26/2007	13:30	1.62E+03	2.30E+02	1.84E+02	1.60E-01	6.06E-01	7.10E-01	2.15E-01	2.64E+00	2.95E+00	-6.20E-01	2.90E+00	3.06E+00	NA	NA	NA	
	004			1/16/2008	12:30	9.28E102	2.45E102	1.77E102	4.62E-01	8.33E-01	9.37E-01	5.23E-01	2.78E100	3.09E100	5.97E-01	2.55E100	2.90E100	NA	NA	NA	
B-1[9]	001	NA	NA	6/29/2007	12:35	7.93E+02	2.07E+02	1.89E+02	-3.83E-01	6.75E-01	9.80E-01	0.00E+00	7.04E+00	4.44E+00	-9.13E-01	3.30E+00	3.40E+00	NA	NA	NA	B-1[9]
	002			8/14/2007	11:30	1.10E+03	2.25E+02	1.90E+02	1.29E-02	5.93E-01	7.38E-01	0.00E+00	6.71E+00	3.93E+00	9.94E-01	3.54E+00	4.16E+00	NA	NA	NA	
	003			10/22/2007	14:49	1.10E+03	4.68E+02	4.01E+02	-1.56E-01	3.72E-01	5.51E-01	1.68E+01	5.82E+00	3.82E+00	1.33E+00	3.23E+00	3.53E+00	NA	NA	NA	
	004			1/22/2008	13:08	2.27E102	1.61E102	1.71E102	1.29E-01	5.00E-01	6.12E-01	3.13E-01	2.54E100	2.83E100	-9.46E-02	2.72E100	3.01E100	NA	NA	NA	
B-6[9]	001	NA	NA	7/5/2007	9:00	4.03E+02	1.67E+02	1.69E+02	1.01E-01	4.97E-01	5.67E-01	1.29E+00	3.46E+00	4.04E+00	1.09E+00	3.51E+00	4.15E+00	NA	NA	NA	B-6[9]
	002			8/14/2007	8:30	5.46E+01	1.68E+02	1.92E+02	-3.06E-01	6.20E-01	8.32E-01	5.63E-01	2.97E+00	3.42E+00	-2.88E+00	3.31E+00	2.35E+00	NA	NA	NA	
	003			10/22/2007	11:30	1.07E+02	1.70E+02	1.90E+02	-7.54E-02	4.34E-01	5.83E-01	2.39E+00	2.33E+00	3.04E+00	1.04E+00	2.46E+00	3.05E+00	NA	NA	NA	
	004			1/16/2008	16:50	4.72E102	2.04E102	1.79E102	1.05E-01	7.05E-01	8.83E-01	3.95E100	4.41E100	3.32E100	1.29E100	3.15E100	3.66E100	NA	NA	NA	

Notes:

1. For nested multi-level monitoring wells, suffix of well ID indicates depth (rounded to nearest foot) from reference point on casing to bottom of well screen. For Waterloo multi-level systems, suffix indicates depth (rounded to nearest foot) from reference point on casing to top of sampling port. Well IDs without a suffix are open bedrock wellbores.
2. Sampling depths within sampling intervals (location of pump intake) have been established at location of most transmissive zone to the extent possible.
3. NA indicates that the constituent was not analyzed.
4. MW-32 currently contains a Waterloo Multilevel Sampling System configured with these sampling intervals. A previous installation of a Waterloo System within MW-32 (prior to the September 10, 2007 installation of the new configuration) was configured with different sampling intervals (indicated by footnote 5). New configuration sampling intervals listed in parenthesis are representatively equivalent to the old configuration sampling interval immediately preceding it. New configuration sampling intervals not listed in parenthesis have no representative equivalent within the old configuration.
5. These sampling intervals were part of the previous Waterloo System configuration in MW-32, prior to the new configuration installed on September 10, 2007. New configuration sampling intervals are indicated by footnote 4.
6. Dot pattern denotes sampling interval is positioned within overburden soils. Open box indicates sampling interval is in bedrock.
7. Sample IDs for this well were not assigned in chronological order.
8. At monitoring well U3T1, sample IDs 019-B, 019-D, and 019-S were collected for laboratory and field QAQC (B=Blind, D=Duplicate, S-Spike). QAQC samples were not included in calculations for rolling averages.
9. These locations are storm drains, not monitoring wells.

IPEC00201793

TABLE 6
2008 3rd QUARTER
GROUNDWATER ANALYTICAL RESULTS
for TRACER DYE (FLUORESCEIN)
INDIAN POINT ENERGY CENTER
BUCHANAN, NY

Well ID[1]	Sample Collection		Results[2]	
	Date	Time	Peak (nm)[3]	Concentration (ppb)
MW-30-69	8/5/08	10:24	515.1 [4]	11.7
MW-30-84	8/5/08	10:30	513.4 [4]	0.125
MW-31-49	8/7/08	11:34	514.1 [4]	0.119
MW-31-63	8/7/08	9:17	512.7 [4]	4.45
MW-31-85	8/7/08	9:13	513.9 [4]	0.435
MW-32-59	7/31/08	11:57	512.8 [4]	0.063
MW-32-85	7/31/08	13:30	509.2	106
MW-32-131	7/31/08	11:29	508.6	0.107
MW-32-149	7/31/08	9:54	508.8	3.52
MW-32-173	7/31/08	9:52	508.5	9.46
MW-32-190	7/31/08	9:50	508.7	10.7
MW-33	8/1/08	12:45	508.5	0.388
MW-42-49	8/4/08	13:52	ND [5]	ND
MW-42-78	8/4/08	12:08	ND	ND
MW-53-82	8/4/08	10:02	ND	ND
MW-53-120	8/4/08	9:40	ND	ND
MW-55-24	8/1/08	10:10	ND	ND
MW-55-35	8/1/08	9:44	ND	ND
MW-55-54	8/1/08	9:26	508.6 [4]	0.017
MW-66-21	7/29/08	10:20	508.2 [6]	0.040
MW-66-36	7/29/08	10:25	509.0	0.120
MW-67-39	7/28/08	12:42	508.7	0.207
MW-67-105	7/28/08	12:40	ND	ND
MW-67-173	7/28/08	12:35	ND	ND
MW-67-219	7/28/08	9:33	ND	ND
MW-67-276	7/28/08	9:35	ND	ND
MW-67-323	7/28/08	9:40	ND	ND
MW-67-340	7/28/08	9:26	ND	ND
U1-CSS	8/1/08	13:50	ND	ND
RW-1 (50')	8/5/08	11:25	508.7	39,000
RW-1 (97')	8/5/08	11:45	508.5	122

Notes:

* Dye concentrations are based upon standards used at the Ozark Underground Laboratory. The standard concentrations are based upon the as-sold weight of the dye that the OUL uses. The is a mixture of 75% dye and 25% diluent.

1. For nested multi-level monitoring wells, suffix of well ID indicates depth (rounded to nearest foot) from reference point on casing to bottom of well screen. For Waterloo multi-level systems, suffix indicates depth (rounded to nearest foot) from reference point on casing to top of sampling port. Well IDs without a suffix are open bedrock wellbores.
2. Results for water samples analyzed for the presence of fluorescein dye.
3. Peak wavelengths are reported in nanometers (nm); dye concentrations are reported in parts per billion (ppb).
4. A fluorescence peak is present that does not meet all the criteria for this dye. However, it has been calculated as though it were the tracer dye.
5. ND indicates that tracer (fluorescein) was not detected.
6. A fluorescence peak is present that does not meet all the criteria for a positive dye result. However, it has been calculated as though it were the tracer dye.

IPEC00201794

FIGURES

Figure 1 **Site Location Plan**

Figure 2 **Site Plan**

Figure 3 **Lower Hudson Valley Geologic Map**

Figure 4 **Current and Potential Future SSC Source Locations**

Figure 5 **2nd Quarter 2008 Shallow and Deep Groundwater Contours**

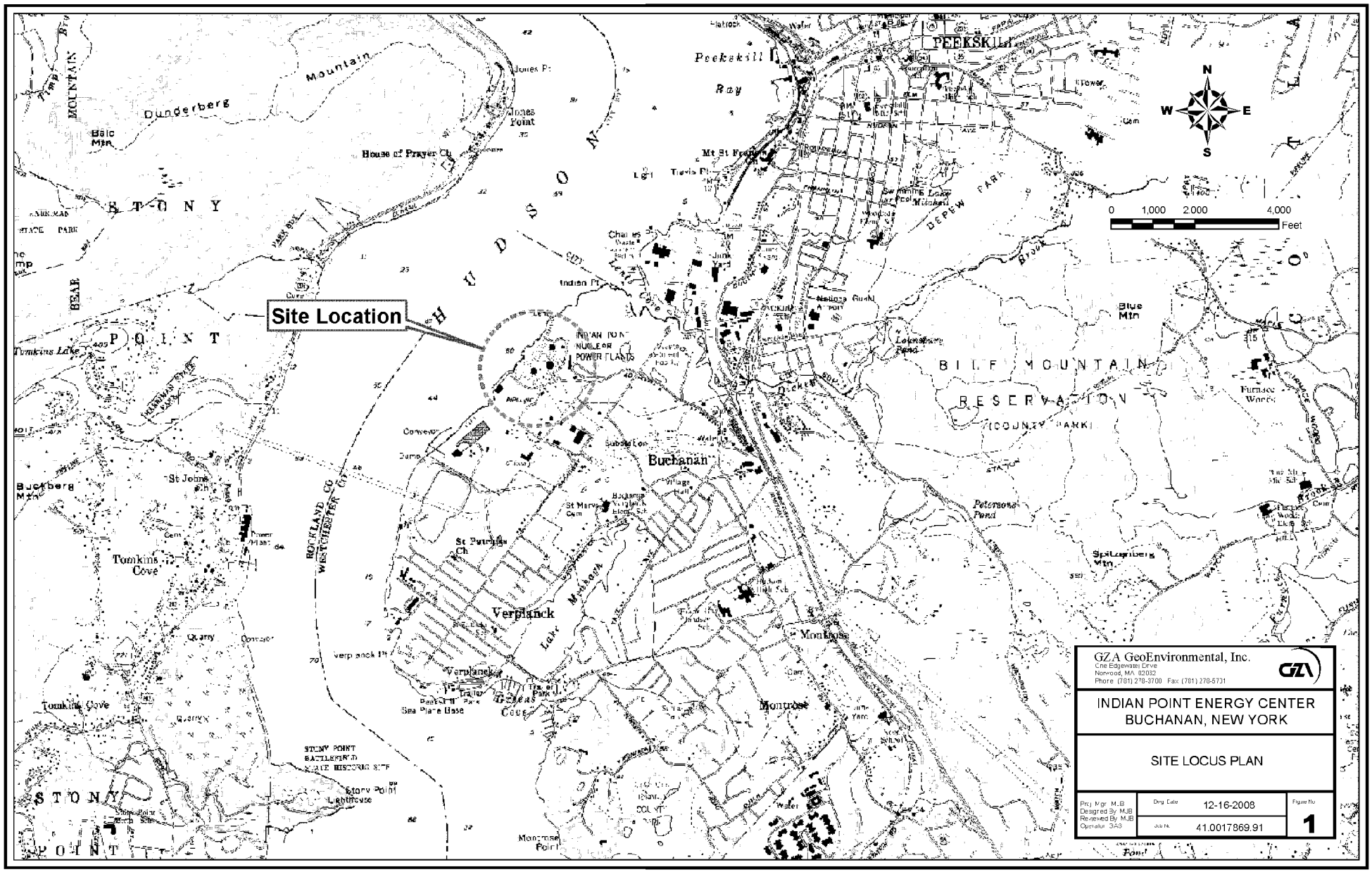
Figure 5A **3rd Quarter 2008 Shallow and Deep Groundwater Contours**

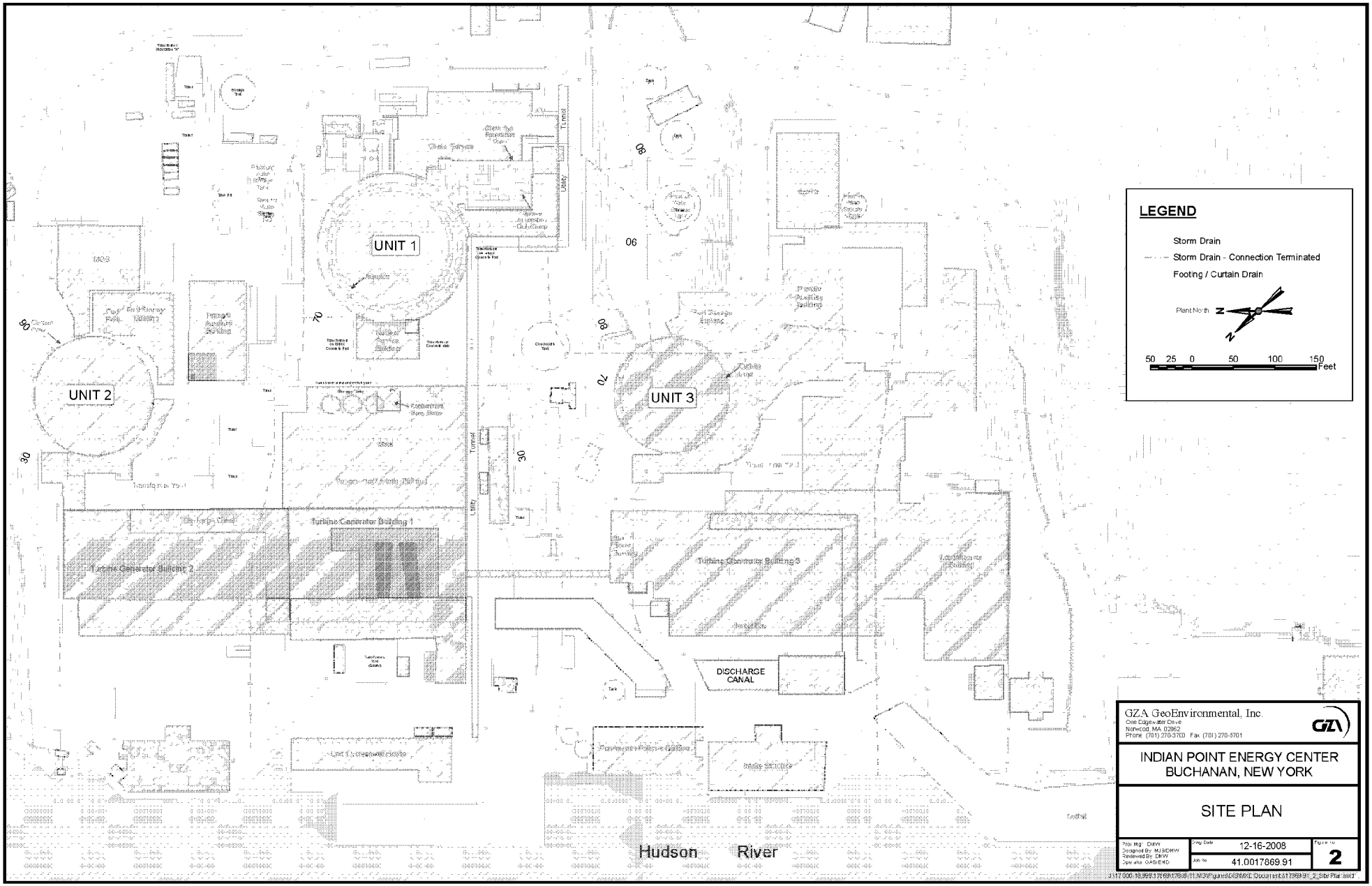
Figure 6 **3rd Quarter 2008 Average Tritium Activity Map**

Figure 7 **3rd Quarter 2008 Average Strontium-90 Activity Map**

Figure 8 **3rd Quarter 2008 Average Cesium, Cobalt, and Nickel Activity Map**

Figure 9 **Current Tracer (Fluorescein) Concentrations Map**


Site Location
INDIAN POINT NUCLEAR POWER PLANTS
Buchanan
Verplanck
Montrose
Peekskill
Dunderberg
Bald Mtn
Tomkins Cove
Stony Point
Bear Mountain
Bear Mountain Bridge Rd
Rockland Co
Westchester Co
Hudson River
Peekskill Bay
Lake Meahagh
Furnace Woods
Blue Mtn
Spitzenberg Mtn
Peterboro Pond
Lakeshore Pond
Tomkins Lake
Iona Island
Iona Island Marsh
Iona Island Sewage Treatment Plant
Stony Point Battlefield State Historic Site
Stony Point Lighthouse
Monroe Point
Indian Point
Jones Point
Mt St Francis
Travis Pt
Charles Point
Sea Plane Base
Buckberg Mtn
St Johns Ch
St Patricks Ch
House of Prayer Ch
Bear Mountain State Park
Hudson River Valley Greenway
Bear Mountain Bridge Rd
Palisades Interstate Parkway
Lake Welch
Lake Welch Dam
Lake Meahagh Dam
Lake Meahagh Outlet
Lake Meahagh Spillway
Lake Meahagh Dike
Lake Meahagh Dike Spillway
Lake Meahagh Dike Outlet
Lake Meahagh Dike Dam



GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, MA 02062
Phone (781) 278-3700 Fax (781) 278-5701

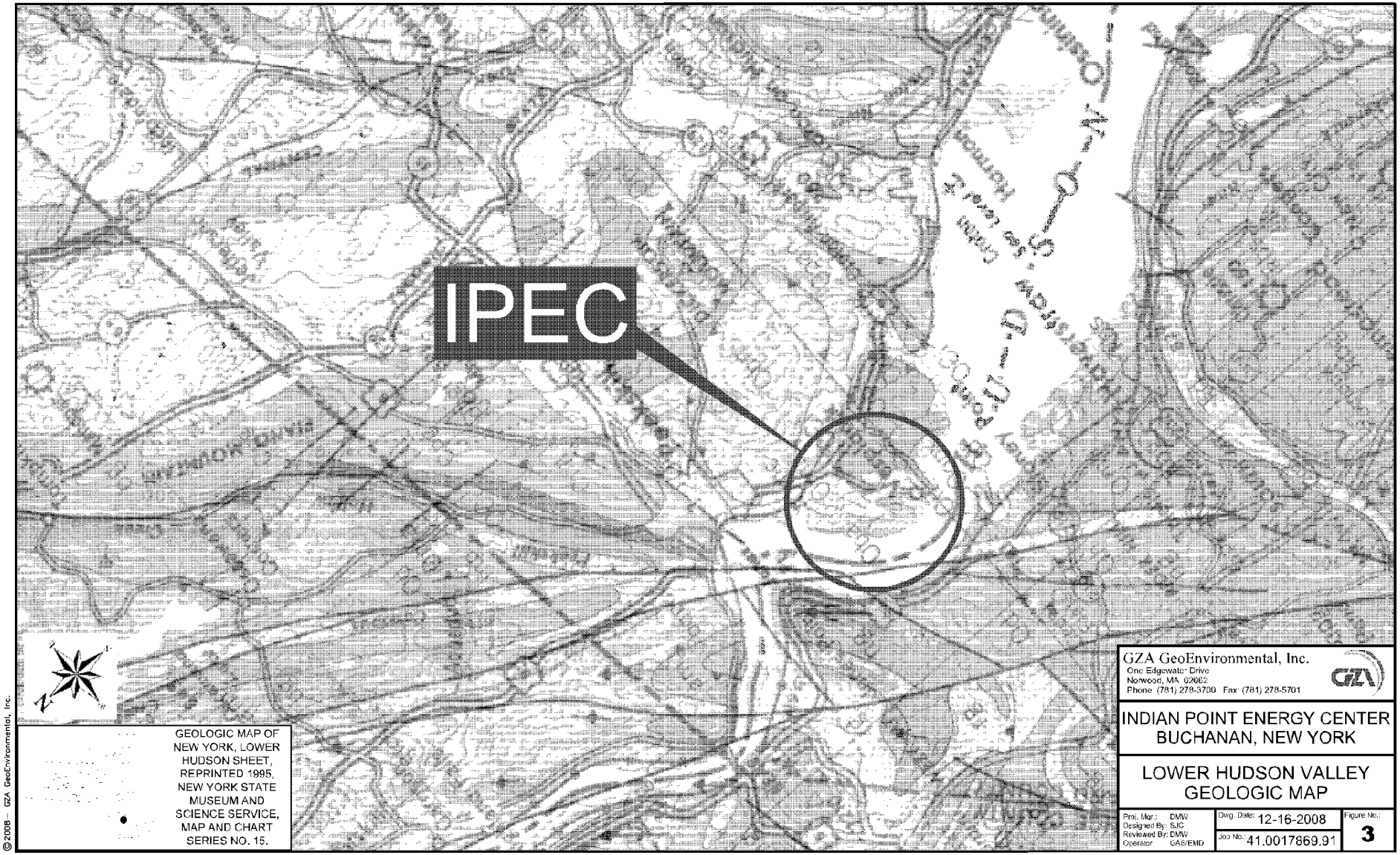
INDIAN POINT ENERGY CENTER
BUCHANAN, NEW YORK

SITE PLAN

Proj Mgr: DMW Designed By: MJS/DMW Reviewed By: DMW Service: OA/E/ED	Dwg Date: 12-16-2008 Job No: 41.0017869.91	Figure No: 2

J:\17000\41.0017869.91\MXD\Figure\DSM\[Document1(17869.91_2_Site Plan.mxd]

IPEC00201797



©2008 - GZA GeoEnvironmental, Inc.

GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, MA 02062
Phone (781) 278-3700 Fax (781) 278-5701

INDIAN POINT ENERGY CENTER
BUCHANAN, NEW YORK

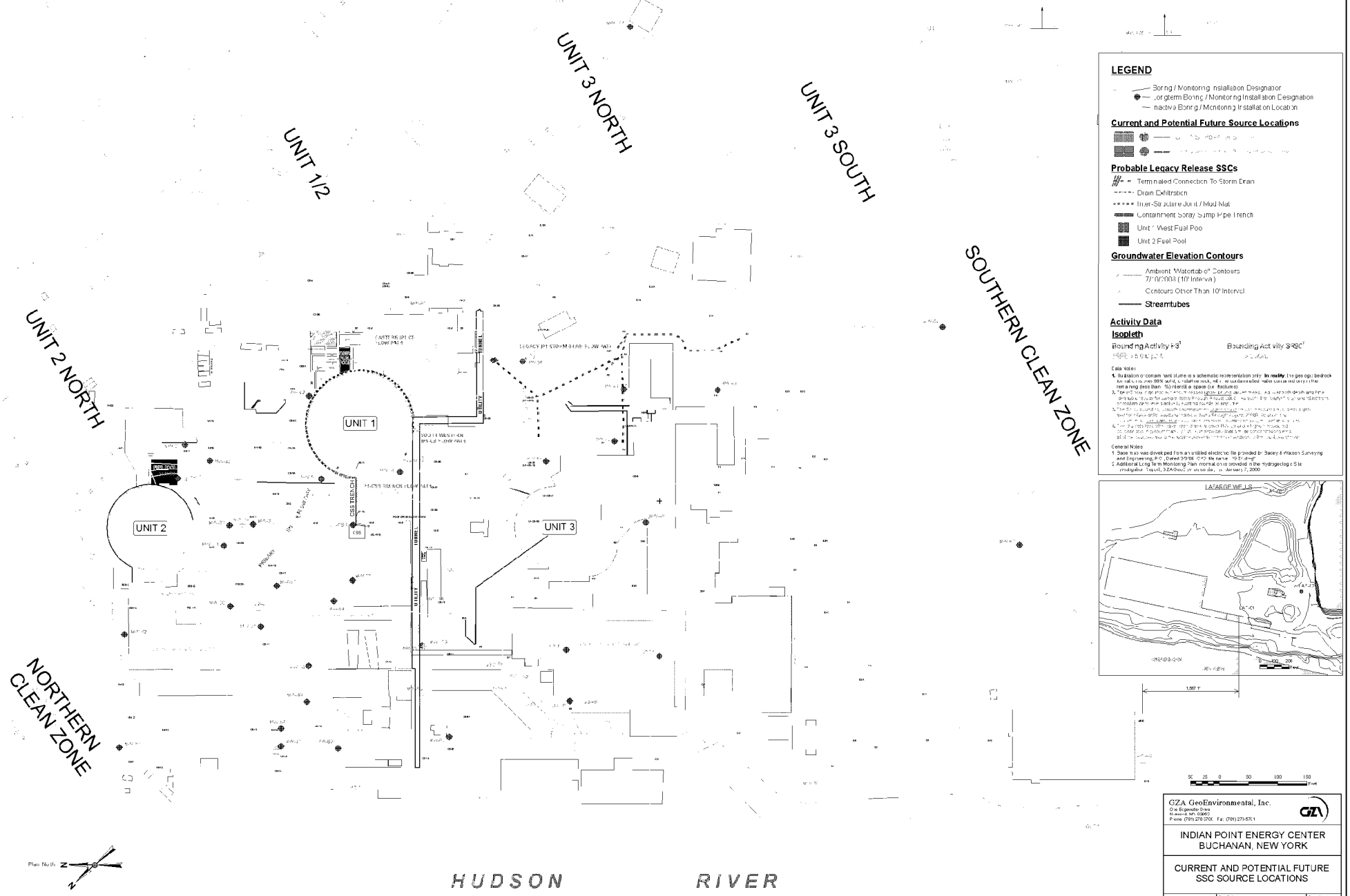
LOWER HUDSON VALLEY
GEOLOGIC MAP

Proj. Mgr.: DMW Designed By: SJC Reviewed By: DMW Operator GAS/EMD	Dwg. Date: 12-16-2008 Job No.: 41.0017869.91	Figure No.: 3

GZA-J:\17,000-18,999\17869\17869-91.MG\Figures\CADD\17869-91_Lower Hudson Valley Geologic Map.dwg [FIG-3] December 16, 2008 - 11:19am gregory.scott

IPEC00201798

CURRENT AND POTENTIAL FUTURE SSC SOURCE LOCATIONS



IPEC00201799

2nd QUARTER 2008 SHALLOW AND DEEP GROUNDWATER CONTOURS

SHALLOW GROUNDWATER ELEVATIONS AT LOW TIDE

Well ID	GW Elevation (feet msl) Quarter 3 2007	Quarter 4 2007	Quarter 1 2008	Quarter 2 2008	Well ID	GW Elevation (feet msl) Quarter 3 2007	Quarter 4 2007	Quarter 1 2008	Quarter 2 2008
MW-1	9.08	8.37	9.15	7.66	MW-52-02	12.50	10.08	11.55	11.65
2	48.62	51.87	52.73	52.11	MW-54-35	NA	6.40	6.27	6.36
MW-31-49	NA	43.43	44.20	44.18	MW-55-44	7.62	7.01	8.18	8.33
MW-32-29	41.44	43.09	44.39	44.42	MW-56-53	20.15	NA	NA	NA
MW-33	9.80	10.38	11.49	11.66	MW-57-31	8.83	9.36	10.99	NA
MW-34	9.93	10.48	11.61	11.76	MW-58-36	6.49	6.98	8.10	9.0
MW-35	9.65	10.27	11.60	12.06	MW-59-30	NA	0.67	0.62	0.7
MW-36-41	7.01	7.61	8.05	8.38	MW-60-26	1.35	1.42	1.58	1.6
MW-37-21	5.15	4.83	4.66	4.18	MW-62-13	0.25	-0.37	-0.76	0.1
MW-38	4.19	3.48	4.44	3.32	MW-62-43	0.09	-0.16	-0.57	0.05
MW-39-67	NA	48.98	50.48	51.69	MW-63-45	NA	NA	NA	56.5
MW-40-21	NA	53.45	54.39	54.99	MW-66-28	0.17	-0.22	-0.76	0.05
MW-41-48	NA	57.81	58.77	59.18	MW-67-19	1.19	0.78	-0.19	0.9
MW-43-49	NA	34.25	34.96	34.81	MW-107	11.357	11.746	12.56	11.95
MW-47-28	21.08	21.29	22.49	22.25	MW-108	9.63	8.79	9.26	10.07
MW-44-66	NA	34.36	35.99	35.47	MW-109	6.86	7.22	9.30	10.12
MW-45-42	34.82	38.47	39.19	37.76	MW-111	9.66	9.74	10.44	11.25
MW-46	11.95	12.73	13.05	4.97	OW-1	1.38	1.16	0.76	0.81
MW-47-37	20.77	29.05	27.76	31.33	TB-1	NA	NA	NA	NA
MW-48-31	21.79	20.79	21.16	20.79	TC	NA	NA	NA	NA
MW-49-26	NA	43.27	44.64	43.03	TD-1	6.54	6.63	8.67	9.2
MW-50-43	NA	NA	NA	5.25	TE	4.15	3.88	2.76	3.97
MW-51-40	48.69	50.07	51.95	52.35	TG-1	1.64	2.38	3.36	0.99
MW-52-1	8.61	8.14	8.47	8.86	TG-1	4.12	2.67	3.99	3.88
					TG-2	4.12	2.79	4.21	3.95

DEEP GROUNDWATER ELEVATIONS AT LOW TIDE

Well ID	GW Elevation (feet msl) Quarter 3 2007	Quarter 4 2007	Quarter 1 2008	Quarter 2 2008	Well ID	GW Elevation (feet msl) Quarter 3 2007	Quarter 4 2007	Quarter 1 2008	Quarter 2 2008
MW-30-69	11.33	12.00	NA	4.28	MW-52-64	NA	5.90	5.25	5.05
MW-32-180	9.87	10.06	10.20	0.06	MW-53-105	9.18	9.28	10.87	11.46
MW-37-57	6.24	6.29	6.48	6.07	MW-54-123	NA	4.51	3.62	3.34
MW-38-134	NA	36.05	36.37	36.47	MW-59-83	2.33	1.97	0.90	0.11
MW-40-8	41.65	47.43	50.06	37.76	MW-60-55	-0.28	-0.73	-1.10	-0.47
MW-41-93	NA	47.77	51.11	52.49	MW-64-95	0.40	-0.09	-0.62	-0.11
MW-42-78	NA	35.11	36.63	36.28	MW-65-112	-0.82	-1.66	-2.05	-1.62
MW-48-152	NA	24.88	NA	30.88	MW-65-87	NA	NA	NA	34.7
MW-49-85	41.41	41.92	46.20	26.28	MW-67-105	1.37	0.61	-0.06	0.5
MW-51-125	44.2	39.41	39.99	40.10					

Note
NA: data not available
1. Quarter 3, 2007 groundwater elevations were measured on 9/26/2007 at 9:22 a.m.
2. Quarter 4, 2007 groundwater elevations were measured on 12/9/07 at 8:45 a.m.
3. Quarter 1, 2008 groundwater elevations were measured on 1/10/08 at 11:16 a.m.
4. Quarter 2, 2008 groundwater elevations were measured on 4/4/08 at 2:14 p.m.

UNIT 1/2

UNIT 3 NORTH

UNIT 3 SOUTH

SOUTHERN CLEAN ZONE

UNIT 2 NORTH

NORTHERN CLEAN ZONE

UNIT 1

UNIT 2

UNIT 3

HUDSON RIVER

LEGEND

- Boring / Monitoring Installation Designation
- Boring / Monitoring Installation
- Shallow Groundwater Contours 4/4/2008 (10' Interval)
- Shallow Groundwater Contours Other Than 10' Interval
- Deep Groundwater Contours 4/4/2008 (10' Interval)
- Stream Tubes

Notes

1. Groundwater contours developed using groundwater elevations measured on 4/4/2008 at low river tide
2. Shallow contours developed using elevations measured at the water table (phreatic) surface
3. Deep contours developed using piezometric elevations measured in screened intervals typically located 40 feet below the groundwater table
4. Base map was developed from an untitled electronic file provided by Badey & Watson Surveying and Engineering, P.C., Dated 2/3/06, CAD file name: "CZA.dwg"

80 25 0 50 100 150 Feet

Plan North

GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, MA 02062
Phone: (781) 278-3700 Fax: (781) 278-5701

INDIAN POINT ENERGY CENTER
BUCHANAN, NEW YORK

2nd QUARTER 2008
SHALLOW AND DEEP
GROUNDWATER CONTOURS

Proj. Mgr: MJE	Designed By: NJB	Released By: NJB	Reviewed: RAC/MJE	Orig. Date: 12-16-2008	Job No: 41 0017969 91	Figure No: 5

IPEC00201800

3rd QUARTER 2008 SHALLOW AND DEEP GROUNDWATER CONTOURS

SHALLOW GROUNDWATER ELEVATIONS AT LOW TIDE

Well ID	GW Elevation (feet msl) Quarter 4 2007	Quarter 1 2008	Quarter 2 2008	Quarter 3 2008	Well ID	GW Elevation (feet msl) Quarter 4 2007	Quarter 1 2008	Quarter 2 2008	Quarter 3 2008
RW-1	-1.57	-2.15	-1.15	-1.50	MW-32-82	10.33	11.99	12.60	10.05
RW-2	21.89	22.75	22.11	22.20	MW-34-25	6.40	7.29	6.56	6.62
MW-31-49	45.40	47.30	46.14	45.39	MW-35-24	7.77	8.17	8.16	8.13
MW-32-39	43.29	44.39	44.23	43.20	MW-36-23	NA	NA	NA	NA
MW-33	10.38	11.49	11.66	10.53	MW-37-11	9.36	13.99	NA	10.03
MW-34	10.44	11.63	12.02	10.34	MW-38-26	6.38	8.32	NA	7.39
MW-35	10.52	11.63	11.99	10.59	MW-39-29	11.07	14.03	11.77	11.08
MW-36-24	7.67	8.85	8.98	7.78	MW-40-35	1.32	1.98	1.63	0.82
MW-37-22	4.82	4.92	4.13	3.40	MW-42-18	-0.27	-0.79	0.13	0.06
MW-38	1.46	2.22	1.32	2.12	MW-45-18	-0.10	-1.37	0.09	0.26
MW-39-61	28.94	32.40	31.89	29.45	MW-46-46	NA	NA	26.60	42.22
MW-40-27	59.42	68.39	58.96	54.70	MW-46-21	-0.22	-1.74	0.60	0.17
MW-41-40	32.48	36.57	33.81	31.28	MW-47-39	0.34	-1.33	0.36	0.41
MW-42-49	58.76	64.94	58.91	58.14	MW-47	11.48	12.79	12.94	11.10
MW-43-28	31.88	33.47	33.95	32.33	MW-108	8.77	9.98	10.09	NA
MW-44-66	34.36	37.05	35.40	35.20	MW-109	7.22	7.80	10.13	7.85
MW-45-42	28.67	34.19	37.16	28.53	MW-111	9.48	12.44	11.48	9.74
MW-46	14.47	14.65	14.97	14.52	MW-11	1.05	2.85	0.81	NA
MW-47-57	23.65	27.96	31.25	23.38	RW-1	NA	NA	NA	NA
MW-48-23	-0.39	-1.14	-0.22	-0.18	RW-2	NA	NA	NA	NA
MW-49-55	20.97	28.63	21.50	21.10	TW-3	6.53	9.67	9.35	8.75
MW-50-42	NA	NA	5.24	6.40	TW-4S	3.30	3.74	3.97	4.21
MW-51-40	30.87	34.35	32.32	30.44	TW-5 C1	3.45	3.36	0.99	2.56
MW-52-11	8.42	8.47	8.82	8.50	TW-11	3.57	3.99	3.86	4.33
					TW-12	3.99	4.40	3.94	4.25

DEEP GROUNDWATER ELEVATIONS AT LOW TIDE

Well ID	GW Elevation (feet msl) Quarter 4 2007	Quarter 1 2008	Quarter 2 2008	Quarter 3 2008	Well ID	GW Elevation (feet msl) Quarter 4 2007	Quarter 1 2008	Quarter 2 2008	Quarter 3 2008
MW-30-69	12.80	NA	12.25	11.79	MW-32-64	9.90	9.55	9.68	9.28
MW-32-149	10.06	10.40	10.08	9.71	MW-32-120	9.39	11.87	11.49	9.76
MW-33-51	6.39	6.26	6.03	5.58	MW-34-122	4.65	1.63	2.50	4.63
MW-39-124	26.05	28.37	30.65	25.77	MW-36-68	1.77	1.90	-0.1	NA
MW-40-81	49.05	54.06	53.79	49.38	MW-46-53	0.79	1.10	0.47	0.90
MW-41-63	27.77	33.21	32.45	27.33	MW-46-94	-0.39	-1.95	-0.1	-0.03
MW-42-78	55.71	56.65	56.23	55.33	MW-46-112	-1.45	-2.03	-1.69	-1.60
MW-44-102	24.04	NA	30.85	25.58	MW-47-80	NA	NA	34.90	32.85
MW-47-80	21.52	28.39	28.20	21.34	MW-51-105	0.51	-1.04	0.37	0.65
MW-51-120	39.47	39.99	40.71	38.80					

Notes:
NA - data not available
1. Quarter 4, 2007 groundwater elevations were measured on 12/6/07 at 11:45 am.
2. Quarter 1, 2008 groundwater elevations were measured on 1/2/08 at 1:14 p.m.
3. Quarter 2, 2008 groundwater elevations were measured on 4/4/08 at 1:14 p.m.
4. Quarter 3, 2008 groundwater elevations were measured on 7/10/08 at 11:45 am.

UNIT 1/2

UNIT 3 NORTH

UNIT 3 SOUTH

SOUTHERN CLEAN ZONE

UNIT 2 NORTH

NORTHERN CLEAN ZONE

UNIT 1

UNIT 2

UNIT 3

HUDSON RIVER

LEGEND

- Boring / Monitoring Installation Designation
- Boring / Monitoring Installation
- Shallow Groundwater Contours 7/10/2008 (10' Interval)
- Shallow Groundwater Contours Other Than 10' Interval
- Deep Groundwater Contours 7/10/2008 (10' Interval)
- Stream Tubes

Notes

1. Groundwater contours developed using groundwater elevations measured on 7/10/2008 at low river tide.
2. Shallow contours developed using elevations measured at the water table (phreatic) surface.
3. Deep contours developed using piezometric elevations measured in screened intervals typically located 40 feet below the groundwater table.
4. Base map was developed from an untitled electronic file provided by Badey & Watson Surveying and Engineering, P.C., Dated 2/2006, CAD file name: "CZA.dwg"

80 25 0 50 100 150 Feet

Plan North

GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, MA 02062
Phone: (781) 278-3700 Fax: (781) 278-5701

INDIAN POINT ENERGY CENTER
BUCHANAN, NEW YORK

3rd QUARTER 2008
SHALLOW AND DEEP
GROUNDWATER CONTOURS

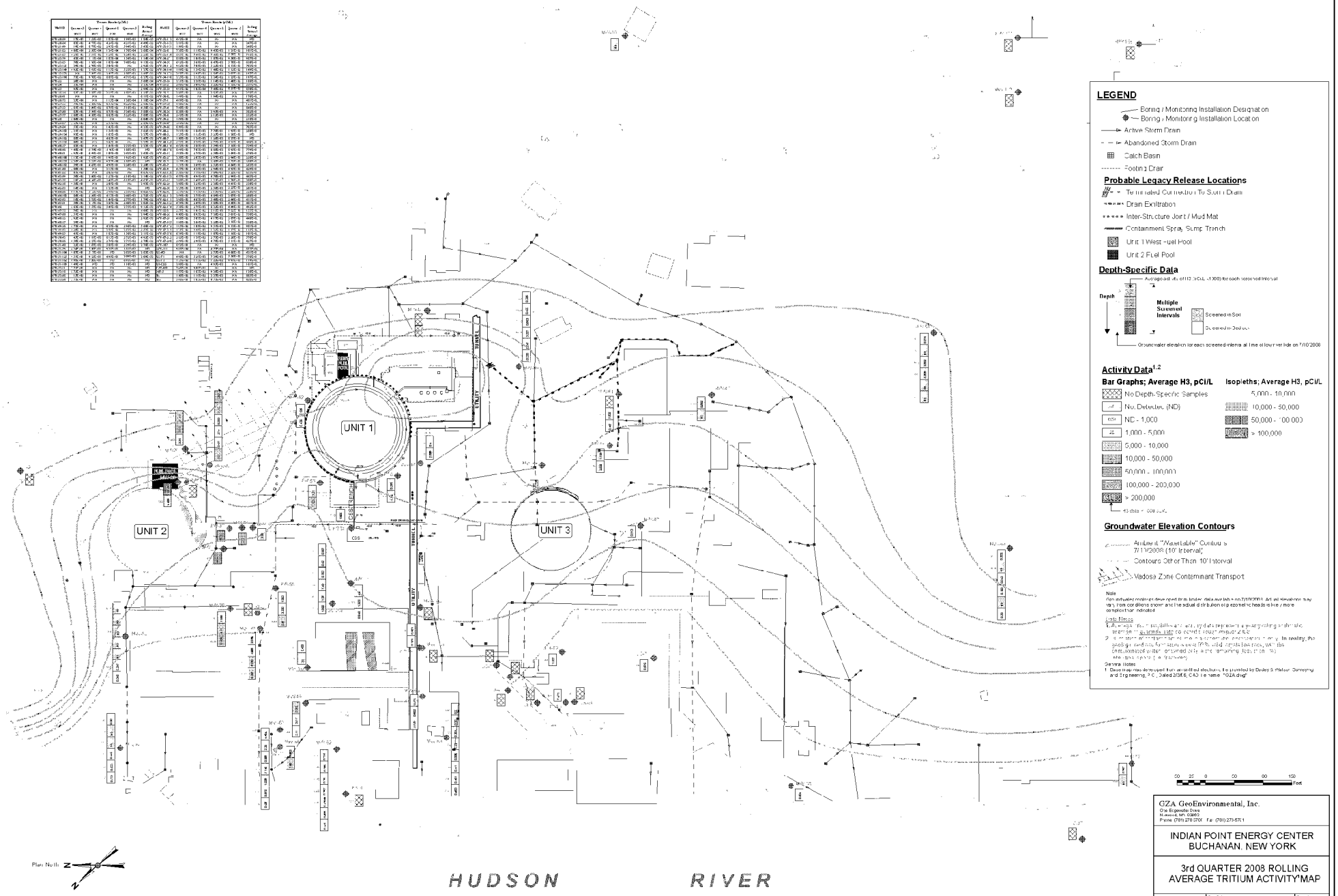
Proj. Mgr: MJE
Designed By: NJB
Released By: NJB
Reviewed: EAC/MJE

Orig. Date: 12-16-2008
Job No: 41.0017969.91

Figure No: 5A

IPEC00201801

3rd QUARTER 2008 ROLLING AVERAGE[1] TRITIUM ACTIVITY MAP



GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, MA 02062
Phone: (781) 278-3700 Fax: (781) 278-5701

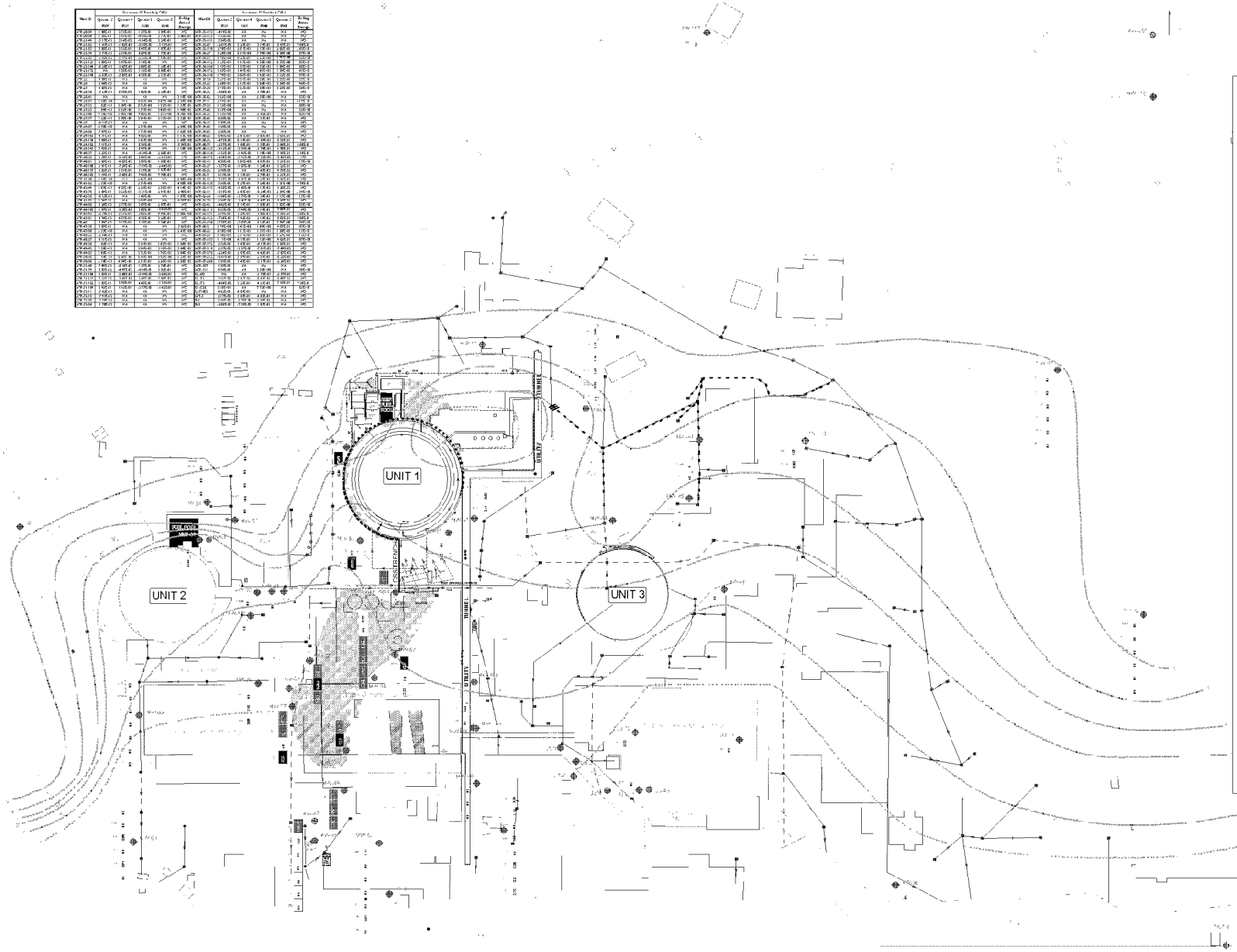
INDIAN POINT ENERGY CENTER
BUCHANAN, NEW YORK

3rd QUARTER 2008 ROLLING AVERAGE TRITIUM ACTIVITY MAP

Pm: Mgr: MJE Designed By: NJB Released By: NJB Reviewer: RAS	Orig. Date:	12-16-2008	Figure No. 6
	Job No:	41.0017369.91	

IPEC00201802

3rd QUARTER 2008 ROLLING AVERAGE[1] STRONTIUM-90 ACTIVITY MAP



LEGEND

- Boring / Monitoring Installation Designation
- Boring / Monitoring Installation Location
- Active Storm Drain
- Abandoned Storm Drain
- Catch Basin
- Footing Drain

Probable Legacy Release Locations

- Terminated Connection To Storm Drain
- Drain Exfiltration
- Inlet-Structure Joint / Mud Mat
- Containment Spray Sump Trench
- Unit 1 West Fuel Pool
- Unit 2 Fuel Pool

Depth-Specific Data

Average activity of Sr90 (pCi/L) by each screened interval

Multiple Screened Intervals w/ Depth

Screened in Soil

Screened in Bedrock

Groundwater elevation for each screened interval at the time of low tide on 7/10/2008

Activity Data[1,5]

Bar Graphs; Average Sr-90, pCi/L

- No Sample
- Not Detected (ND)
- ND - 1
- 1.1 - 2.0
- 2.1 - 4.0
- 4.1 - 8.0
- 8.1 - 25
- > 25

Isopleths; Average Sr-90, pCi/L

- 2 - 4
- 4 - 8
- 8 - 25
- > 25

Note: The isopleths are shown as lines of constant concentration only. In reality the geologic and hydrologic conditions are more complex and the concentrations change over relatively short distances.

Groundwater Elevation Contours

- Ambient "Watertable" Contours 7/10/2008 (10' Interval)
- Contours Other Than 10' Interval
- Vadose Zone Contaminant Transport

Note:
Groundwater contours developed from limited data available on 7/10/2008. Actual elevations may vary from conditions shown and the actual distribution of isopleths is likely more complex than indicated.

Data Notes:

1. Average Sr-90 activity and activity data presented are based on the most recent sample collected in 2008.
2. Sr-90 activity in the vadose zone is the result of migration of contaminants from the overlying groundwater.
3. Two isopleths of 4 pCi/L are shown, one in the vadose zone and one in the groundwater.
4. The isopleths of 4 pCi/L in the groundwater and vadose zone are based on the average concentration of the most recent sample collected from each well.
5. The isopleth of 8 pCi/L in the groundwater is based on the average concentration of the most recent sample collected from each well, with the exception of MW-30D, which is based on the average concentration of the two most recent samples collected from this well.
6. The isopleth of 25 pCi/L in the groundwater is based on the average concentration of the most recent sample collected from each well, with the exception of MW-30D, which is based on the average concentration of the two most recent samples collected from this well.

General Notes:

1. Base map was developed from an unfiled electronic file provided by Badey & Watson Surveying and Engineering, P.C., Dated 2/2/06, CAD file name "GZAutog".

0 25 50 100 150 Feet

GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, MA 02062
Phone: (781) 278-3700 Fax: (781) 278-5701

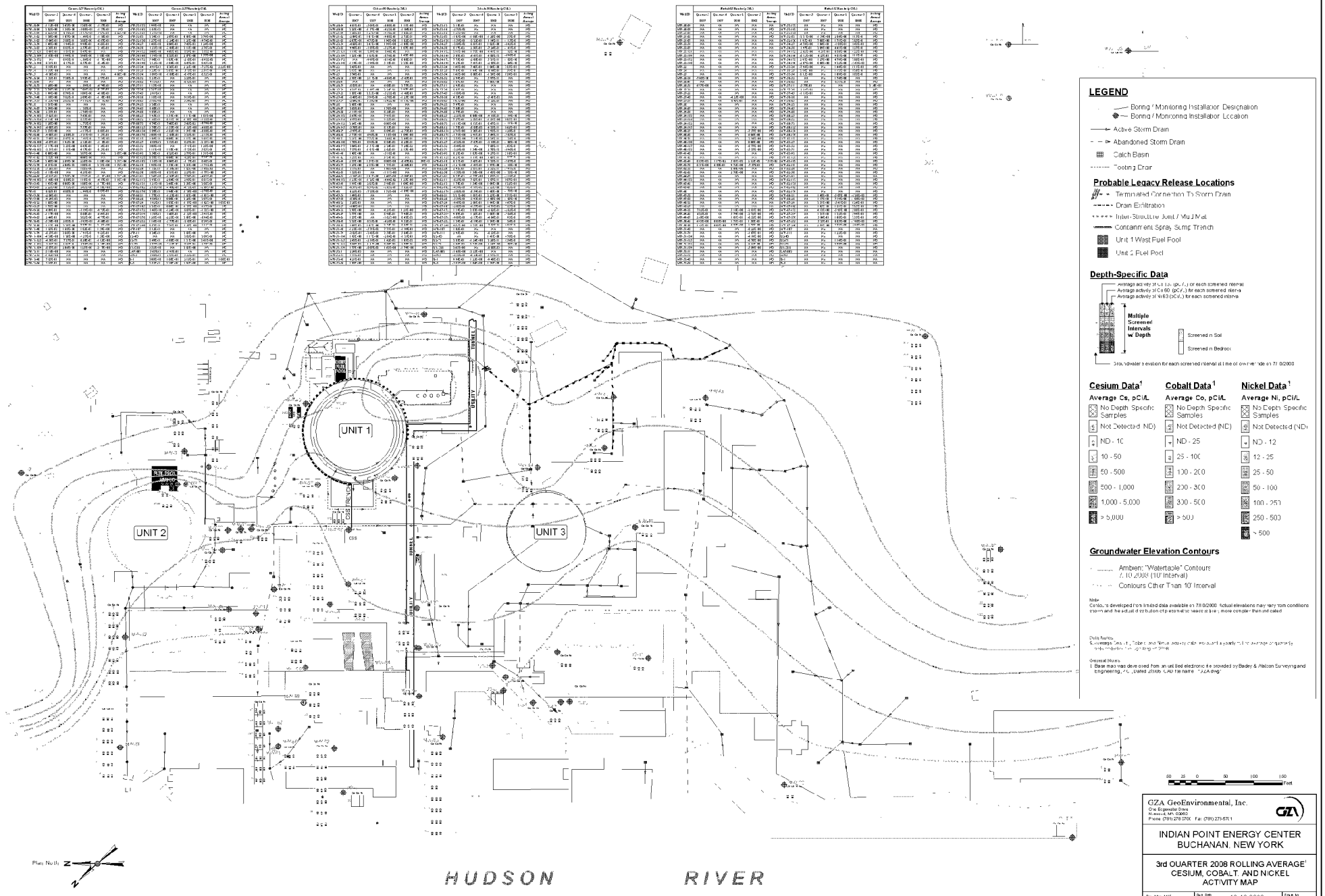
INDIAN POINT ENERGY CENTER
BUCHANAN, NEW YORK

3rd QUARTER 2008 ROLLING AVERAGE STRONTIUM-90 ACTIVITY MAP

Proj. Mgr. MJE	Dwg. Date: 12-16-2008	Figure No.
Designed By: NJB		7
Reviewed By: NJB	Job No: 41.0017369.91	
Plotted: DAS		

IPEC00201803

3rd QUARTER 2008 ROLLING AVERAGE[1] CESIUM, COBALT, AND NICKEL ACTIVITY MAP



LEGEND

- Boring / Monitoring Installation Designation
- Boring / Monitoring Installation Location
- Active Storm Drain
- Abandoned Storm Drain
- Catch Basin
- Footing Drain

Probable Legacy Release Locations

- Terminated Connection To Storm Drain
- Drain Exfiltration
- Inter-Structure Joint / Mud Mat
- Containment Spray Sump Trench
- Unit 1 West Fuel Pool
- Unit 2 Fuel Pool

Depth-Specific Data

Average activity of Cs-137 (pCi/L) for each screened interval
Average activity of Co-60 (pCi/L) for each screened interval
Average activity of Ni-63 (pCi/L) for each screened interval

Multiple Screened Intervals w/ Depth

Screened in Soil

Screened in Bedrock

Groundwater elevation for each screened interval at time of overhaul on 7/ 0/2008

Cesium Data[1]

Average Cs, pCi/L

- No Depth Specific Samples
- Not Detected (ND)
- ND - 10
- 10 - 50
- 50 - 500
- 500 - 1,000
- 1,000 - 5,000
- > 5,000

Cobalt Data[1]

Average Co, pCi/L

- No Depth Specific Samples
- Not Detected (ND)
- ND - 25
- 25 - 100
- 100 - 200
- 200 - 300
- 300 - 500
- > 500

Nickel Data[1]

Average Ni, pCi/L

- No Depth Specific Samples
- Not Detected (ND)
- ND - 12
- 12 - 25
- 25 - 50
- 50 - 100
- 100 - 250
- 250 - 500
- > 500

Groundwater Elevation Contours

- Ambient "Watertable" Contours At 10 2008 (10' Interval)
- Contours Other Than 10' Interval

Note
Contours developed from limited data available on 7/ 0/2008. Actual elevations may vary from conditions shown and the actual distribution of perched water is likely more complex than indicated.

Data Source
Average Cesium-137, Cobalt-60 and Nickel-63 activity data presented is a yearly rolling average calculated from 1st Quarter 2006 through 3rd Quarter 2008.

General Notes
1. Base map was developed from an unfilled electronic file provided by Badley & Watson Surveying and Engineering, P.C., dated 2/5/08. CAD file name: "IP2A.dwg"

50 25 0 50 100 150 Feet

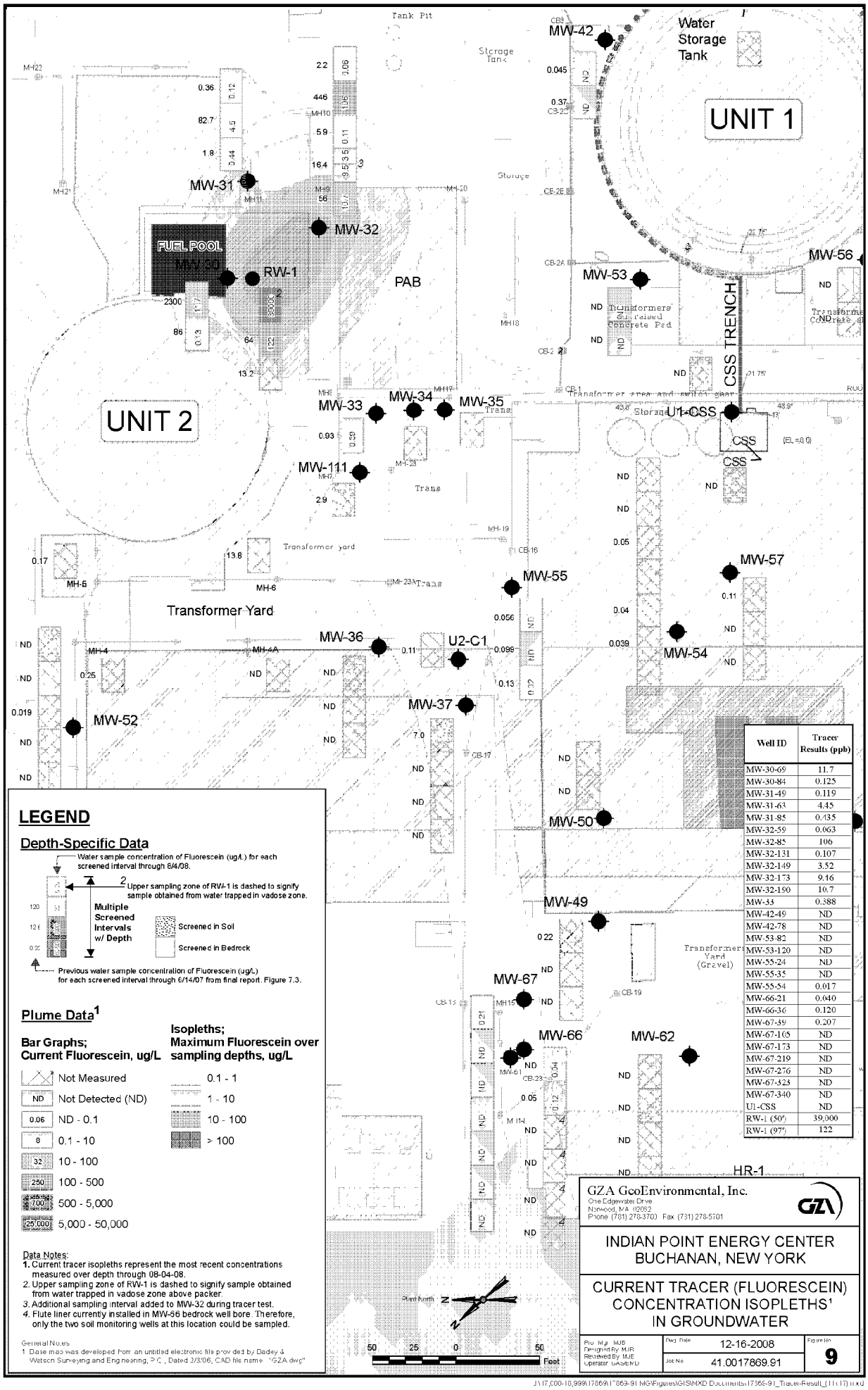
GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, MA 02062
Phone: (781) 278-3700 Fax: (781) 278-5701

INDIAN POINT ENERGY CENTER
BUCHANAN, NEW YORK

3rd QUARTER 2008 ROLLING AVERAGE[1] CESIUM, COBALT, AND NICKEL ACTIVITY MAP

Prepared By: MJE	Designed By: KJB	Reviewed By: KJB	Reviewed: EAS	Drawing Date: 12-16-2008	Job No: 41.0017369.91	Figure No: 8

IPEC00201804



LEGEND

Depth-Specific Data

Water sample concentration of Fluorescein (ug/L) for each screened interval through 8/4/08.

2 Upper sampling zone of RW-1 is dashed to signify sample obtained from water trapped in vadose zone.

Multiple Screened Intervals w/ Depth

Screened in Soil

Screened in Bedrock

Previous water sample concentration of Fluorescein (ug/L) for each screened interval through 6/14/07 from final report. Figure 7.3.

Plume Data[1]

Bar Graphs; Current Fluorescein, ug/L		Isopleths; Maximum Fluorescein over sampling depths, ug/L
	Not Measured	0.1 - 1
ND	Not Detected (ND)	1 - 10
0.06	ND - 0.1	10 - 100
8	0.1 - 10	> 100
32	10 - 100	
250	100 - 500	
700	500 - 5,000	
25,000	5,000 - 50,000	

Data Notes:
1. Current tracer isopleths represent the most recent concentrations measured over depth through 08-04-08.
2. Upper sampling zone of RW-1 is dashed to signify sample obtained from water trapped in vadose zone above packer.
3. Additional sampling interval added to MW-32 during tracer test.
4. Flute liner currently installed in MW-66 bedrock well bore. Therefore, only the two soil monitoring wells at this location could be sampled.

General Notes
1 Base map was developed from an untitled electronic file provided by Dadey & Watson Surveying and Engineering, P.C., Dated 2/3/06, CAD file name "GZA.dwg"

Well ID	Tracer Results (ppb)
MW-30-69	11.7
MW-30-84	0.125
MW-31-49	0.119
MW-31-63	4.45
MW-31-85	0.435
MW-32-59	0.063
MW-32-85	106
MW-32-131	0.107
MW-32-149	3.52
MW-32-173	9.16
MW-32-190	10.7
MW-33	0.388
MW-42-49	ND
MW-42-78	ND
MW-53-82	ND
MW-53-120	ND
MW-55-24	ND
MW-55-35	ND
MW-55-54	0.017
MW-66-21	0.040
MW-66-36	0.120
MW-67-39	0.207
MW-67-105	ND
MW-67-173	ND
MW-67-219	ND
MW-67-276	ND
MW-67-323	ND
MW-67-340	ND
U1-CSS	ND
RW-1 (50')	39,000
RW-1 (97')	122

GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, MA 02062
Phone (781) 278-3700 Fax (781) 278-5701

INDIAN POINT ENERGY CENTER
BUCHANAN, NEW YORK

CURRENT TRACER (FLUORESCEIN) CONCENTRATION ISOPLETHS[1] IN GROUNDWATER

Proj. Mgr. MJB Designed By MJR Reviewed By MJE Operator GASEMO	Dwg. Date 12-16-2008 Job No. 41.0017869.91	Figure No. 9

J:\17,000-18,999\17869\17869-91.MG\Figures\GIS\MXD Documents\17869-91_Tracer-Result_(11-07).mxd

APPENDIX A: LIMITATIONS

HYDROGEOLOGICAL LIMITATIONS

1. The conclusions and recommendations submitted in this report are based in part upon the radiological, chemical and physical data from water analyses. These data were obtained from specific sampling locations at specific times. The full nature and extent of variations in the data between these specific locations and times are not known. The conditions existing between these specific locations and times have only been inferred using interpolation and extrapolation based on judgment.

2. The subsurface profiles described in the text and presented in the report figures are intended to convey anticipated trends in subsurface conditions. The conditions shown are approximate and generalized and were developed, in part, based on judgment. For specific information at specific locations, refer to the individual subsurface investigation logs.

3. Water level readings (piezometric pressures) have been made in the specific borings, monitoring wells, and Waterloo installations at times and under conditions stated. These data have been reviewed and interpretations have been made in the text and on the figures of this report. However, it must be noted that temporal and spatial fluctuations in the level of the groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time and location measurements were made.

4. Where quantitative laboratory testing has been conducted by an outside laboratory, GZA has relied upon the validity of the data provided, and has not conducted an independent laboratory evaluation of the reliability of these data.

5. Radiological and chemical analyses have been performed for specific parameters during the course of this study, as summarized in the text. Additional constituents not searched for may be present in soil and groundwater at the site.

6. Variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past and current plant operational practices, the passage of time, and other factors. Should additional data (water analyses, water elevations, subsurface deposits, plant construction and operation, etc.) become available in the future, these data should be reviewed by GZA, and the conclusions and recommendations presented herein modified accordingly.

7. This monitoring report was developed by GZA GeoEnvironmental Inc for the exclusive of Entergy Nuclear Northeast (Entergy) at the Indian Point Energy Center. Any use of data or information provided in the report, by parties other than Entergy, is prohibitated without the prior written permission of Entergy and GZA.

APPENDIX B: TRANSDUCER INSTALLATION LOGS

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	MW-33
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	30.00	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	18.859	DATE	8/14/08
PSI CAPACITY	30	CASING ELEVATION (FT)	18.619		
SERIAL NUMBER	5385	CASING DIAMETER (INCH)	4		

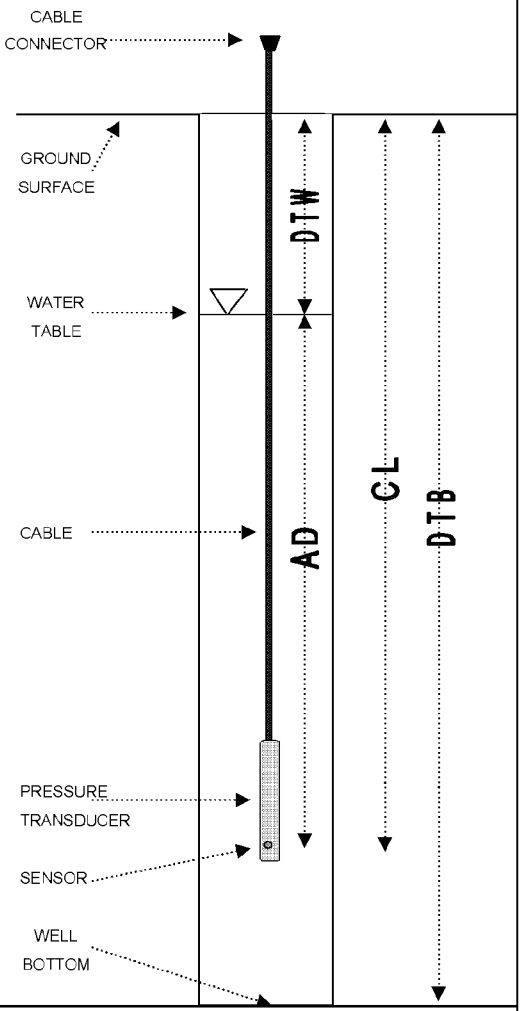
STATIC GROUNDWATER TABLE ELEVATION (FT): 10.97

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	30.00	FT	
GROUND ELEVATION:	18.859	FT M.S.L.	
CASING ELEVATION:	18.619	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.240	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	1044	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	7.65	FT	
ACTUAL DEPTH:	+ 17.647	FT	
THEORETICAL CABLE LENGTH:	= 25.297	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	18.619	FT M.S.L.	
DEPTH TO WATER:	− 7.65	FT	
REFERENCE ELEVATION:	= 10.969	FT M.S.L.	
TEST NAME:	MW-33		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1045	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

GZA

WELL ID : MW-33

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	MW-36-24
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	54.00	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	11.799	DATE	5/19/08
PSI CAPACITY	30	CASING ELEVATION (FT)	11.598		
SERIAL NUMBER	5376	CASING DIAMETER (INCH)	2		

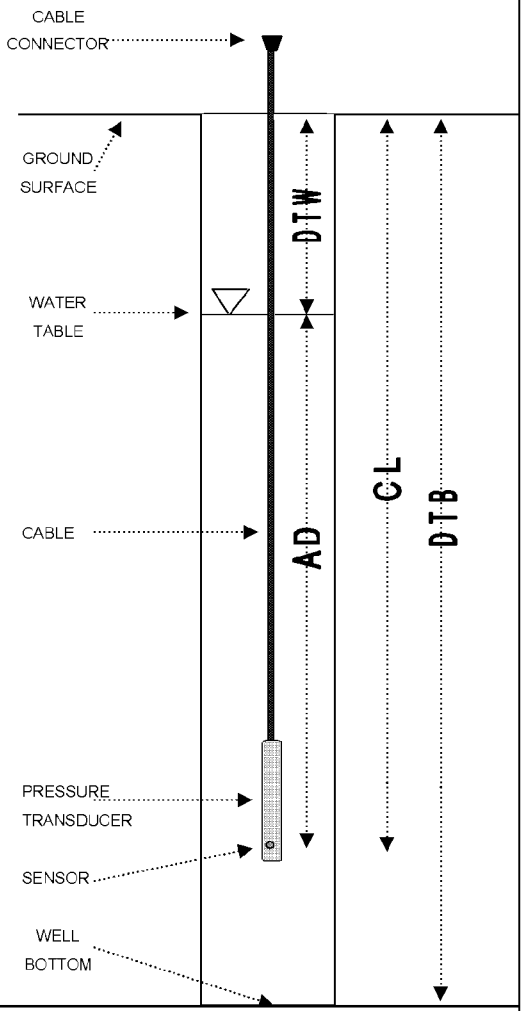
STATIC GROUNDWATER TABLE ELEVATION (FT): 8.39

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	24.00	FT	
GROUND ELEVATION:	11.799	FT M.S.L.	
CASING ELEVATION:	11.598	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.201	FT	
	--	FT	
TIME OF MEASUREMENT:	1337	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	3.21	FT	
ACTUAL DEPTH: +	20.291	FT	
THEORETICAL CABLE LENGTH: =	23.501	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	11.598	FT M.S.L.	
DEPTH TO WATER: −	3.21	FT	
REFERENCE ELEVATION: =	8.388	FT M.S.L.	
TEST NAME:	MW-36-24		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1338	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	MW-36-52
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	54.00	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	11.799	DATE	4/18/08
PSI CAPACITY	30	CASING ELEVATION (FT)	11.670		
SERIAL NUMBER	5965	CASING DIAMETER (INCH)	1		

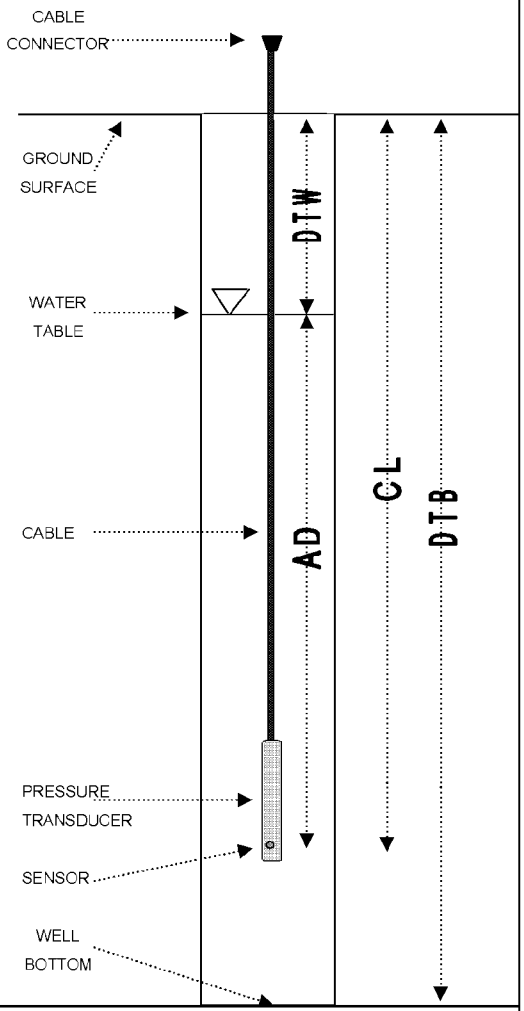
STATIC GROUNDWATER TABLE ELEVATION (FT): 8.99

GZA ENGINEER: A. Altieri

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	52.00	FT	
GROUND ELEVATION:	11.799	FT M.S.L.	
CASING ELEVATION:	11.670	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.129	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	1626	HRS	
MEASUREMENT TAKEN FROM:	casing		
DEPTH TO WATER:	2.68	FT	
ACTUAL DEPTH:	+ 48.627	FT	
THEORETICAL CABLE LENGTH:	= 51.307	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	11.670	FT M.S.L.	
DEPTH TO WATER:	− 2.68	FT	
REFERENCE ELEVATION:	= 8.990	FT M.S.L.	
TEST NAME:	MW-36-52		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1628	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client Entergy Indian Point Energy Center	WELL ID	MW-41-40
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	64.00	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	54.87	DATE	5/20/08
PSI CAPACITY	30	CASING ELEVATION (FT)	54.13		
SERIAL NUMBER	13981	CASING DIAMETER (INCH)	2		

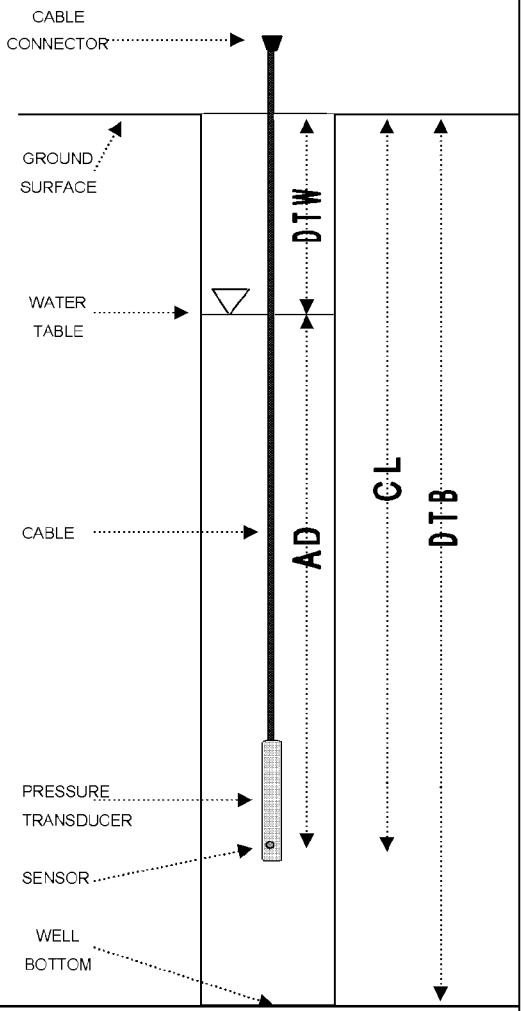
STATIC GROUNDWATER TABLE ELEVATION (FT): 32.74

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	40.00	FT	
GROUND ELEVATION:	54.87	FT M.S.L.	
CASING ELEVATION:	54.13	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.74	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	1150	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	21.39	FT	
ACTUAL DEPTH:	+ 14.904	FT	
THEORETICAL CABLE LENGTH:	= 36.294	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	54.13	FT M.S.L.	
DEPTH TO WATER:	− 21.39	FT	
REFERENCE ELEVATION:	= 32.74	FT M.S.L.	
TEST NAME:	MW-41-40		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1151	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

GZA

WELL ID : MW-41-40

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	MW-42-49
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	80.00	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	69.71	DATE	8/4/08
PSI CAPACITY	30	CASING ELEVATION (FT)	69.42		
SERIAL NUMBER	11978	CASING DIAMETER (INCH)	2		

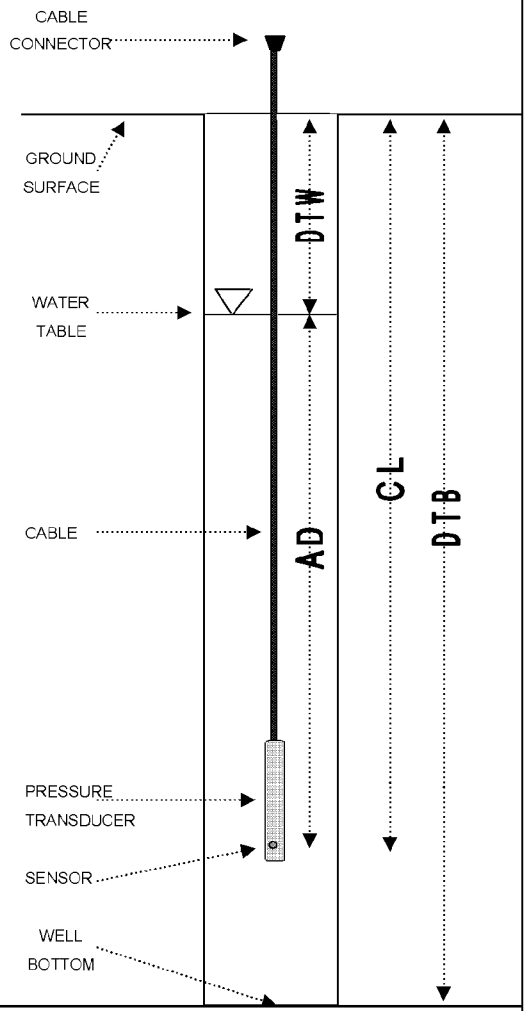
STATIC GROUNDWATER TABLE ELEVATION (FT): 34.65

GZA ENGINEER: A. Altieri

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	49.00	FT	
GROUND ELEVATION:	69.71	FT M.S.L.	
CASING ELEVATION:	69.42	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.29	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	1441	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	34.77	FT	
ACTUAL DEPTH:	+ 13.817	FT	
THEORETICAL CABLE LENGTH:	= 48.587	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	69.42	FT M.S.L.	
DEPTH TO WATER:	− 34.77	FT	
REFERENCE ELEVATION:	= 34.65	FT M.S.L.	
TEST NAME:	MW-42-49		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1442	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:
Batteries died on 7/11/08; replaced.

GZA

WELL ID : MW-42-49

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	MW-44-67
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	105.00	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	93.52	DATE	7/29/08
PSI CAPACITY	30	CASING ELEVATION (FT)	93.02		
SERIAL NUMBER	16108	CASING DIAMETER (INCH)	2		

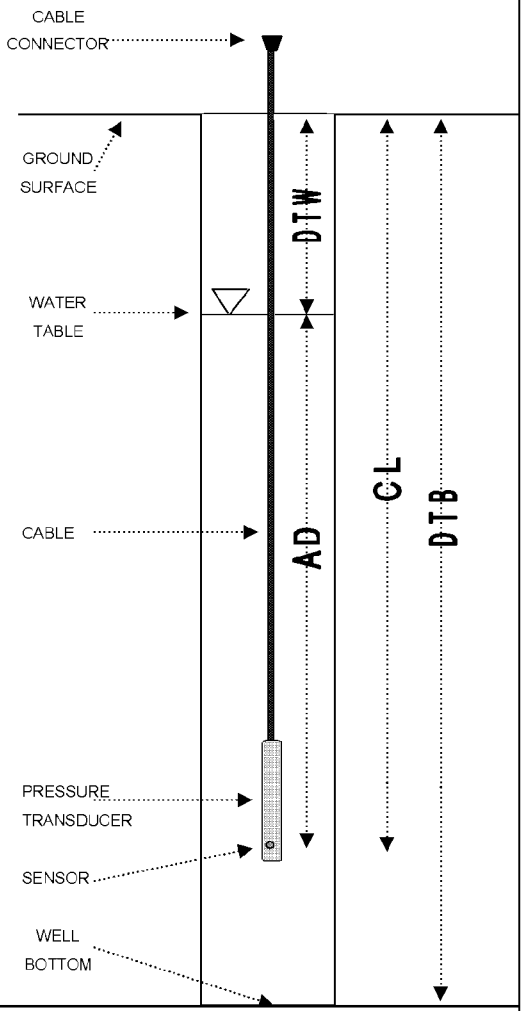
STATIC GROUNDWATER TABLE ELEVATION (FT): 38.52

GZA ENGINEER: A. Altieri/ M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:		67.00	FT
GROUND ELEVATION:		93.52	FT M.S.L.
CASING ELEVATION:		93.02	FT M.S.L.
CASING ABOVE (+) OR BELOW (-) GROUND:		below	
DISTANCE FROM CASING TO GROUND (+ OR -):		0.50	FT
MEASURED CABLE LENGTH:		--	FT
TIME OF MEASUREMENT:		1550	HRS
MEASUREMENT TAKEN FROM:		TOC	
DEPTH TO WATER:		54.50	FT
ACTUAL DEPTH:	+	9.345	FT
THEORETICAL CABLE LENGTH:	=	63.845	FT
HAVE CLOCKS BEEN SYNCHRONIZED?		☑	check
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?		☑	check
ELEVATION OF MEASURING POINT:		93.02	FT M.S.L.
DEPTH TO WATER:	−	54.50	FT
REFERENCE ELEVATION:	=	38.52	FT M.S.L.
TEST NAME:		MW-44-67	
LOGGING INTERVAL:		20	MIN
TEST START TIME:		1552	HRS



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

GZA

WELL ID : MW-44-67

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client Entergy Indian Point Energy Center	WELL ID	MW-44-102
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	102.00	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	93.52	DATE	7/29/08
PSI CAPACITY	30	CASING ELEVATION (FT)	93.09		
SERIAL NUMBER	15040	CASING DIAMETER (INCH)	1		

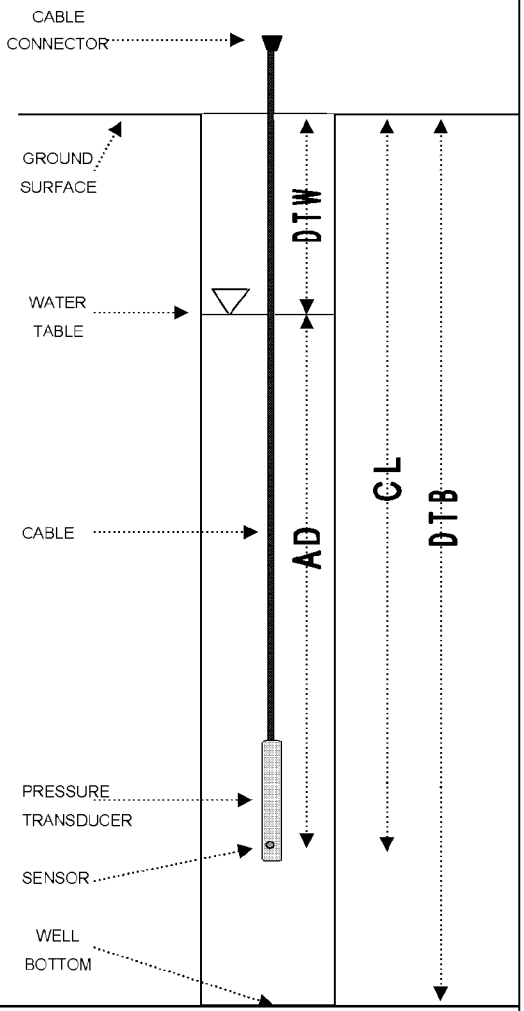
STATIC GROUNDWATER TABLE ELEVATION (FT): 29.99

GZA ENGINEER: A. Altieri

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:		102.00	FT
GROUND ELEVATION:		93.52	FT M.S.L.
CASING ELEVATION:		93.09	FT M.S.L.
CASING ABOVE (+) OR BELOW (-) GROUND:		below	
DISTANCE FROM CASING TO GROUND (+ OR -):		-0.43	FT
MEASURED CABLE LENGTH:		--	FT
TIME OF MEASUREMENT:		1546	HRS
MEASUREMENT TAKEN FROM:		TOC	
DEPTH TO WATER:		63.10	FT
ACTUAL DEPTH:	+	35.536	FT
THEORETICAL CABLE LENGTH:	=	98.636	FT
HAVE CLOCKS BEEN SYNCHRONIZED?		☑	check
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?		☑	check
ELEVATION OF MEASURING POINT:		93.09	FT M.S.L.
DEPTH TO WATER:	−	63.10	FT
REFERENCE ELEVATION:	=	29.99	FT M.S.L.
TEST NAME:		MW-44-102	
LOGGING INTERVAL:		20	MIN
TEST START TIME:		1548	HRS



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	MW-46
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	30.00	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	18.08	DATE	8/13/08
PSI CAPACITY	30	CASING ELEVATION (FT)	16.97		
SERIAL NUMBER	4424	CASING DIAMETER (INCH)	4		

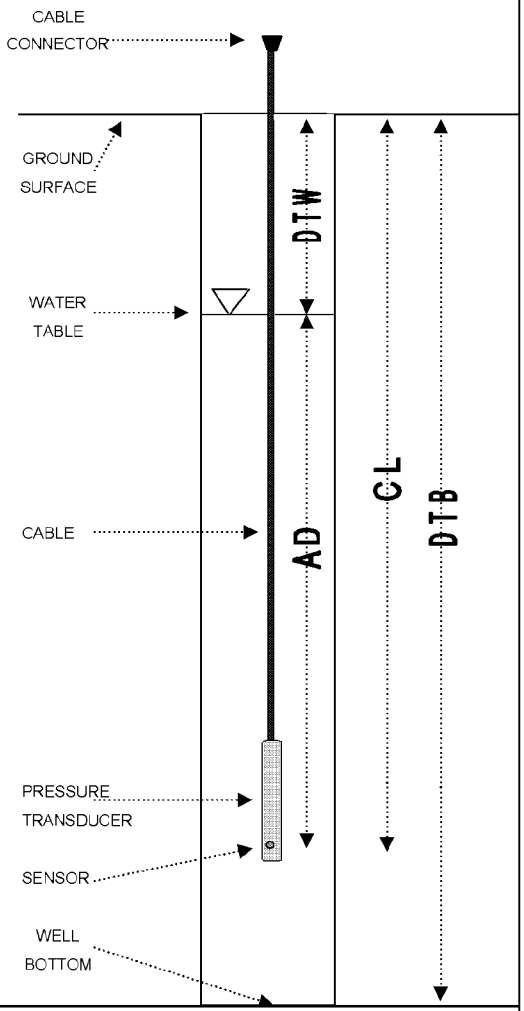
STATIC GROUNDWATER TABLE ELEVATION (FT): 12.76

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	29.82	FT	
GROUND ELEVATION:	18.08	FT M.S.L.	
CASING ELEVATION:	16.97	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	-		
DISTANCE FROM CASING TO GROUND (+ OR -):	-1.11	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	1342	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	4.21	FT	
ACTUAL DEPTH:	+ 23.38	FT	
THEORETICAL CABLE LENGTH:	= 27.59	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	16.97	FT M.S.L.	
DEPTH TO WATER:	− 4.21	FT	
REFERENCE ELEVATION:	= 12.76	FT M.S.L.	
TEST NAME:	MW-46		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1343	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	MW-47-56
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	80.00	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	70.32	DATE	5/20/08
PSI CAPACITY	30	CASING ELEVATION (FT)	69.81		
SERIAL NUMBER	15843	CASING DIAMETER (INCH)	2		

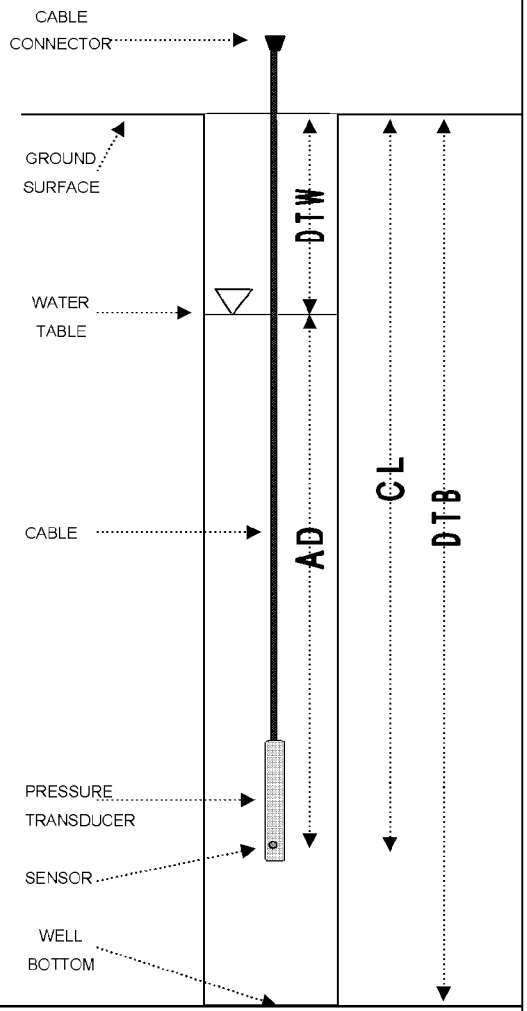
STATIC GROUNDWATER TABLE ELEVATION (FT): 24.09

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	56.00	FT	
GROUND ELEVATION:	70.32	FT M.S.L.	
CASING ELEVATION:	69.81	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.51	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	1118	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	45.72	FT	
ACTUAL DEPTH:	+ 4.36	FT	
THEORETICAL CABLE LENGTH:	= 50.08	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	69.81	FT M.S.L.	
DEPTH TO WATER:	− 45.72	FT	
REFERENCE ELEVATION:	= 24.09	FT M.S.L.	
TEST NAME:	MW47-57		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1119	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	MW-47-56
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	80.00	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	70.32	DATE	8/20/08
PSI CAPACITY	30	CASING ELEVATION (FT)	69.81		
SERIAL NUMBER	15843	CASING DIAMETER (INCH)	2		

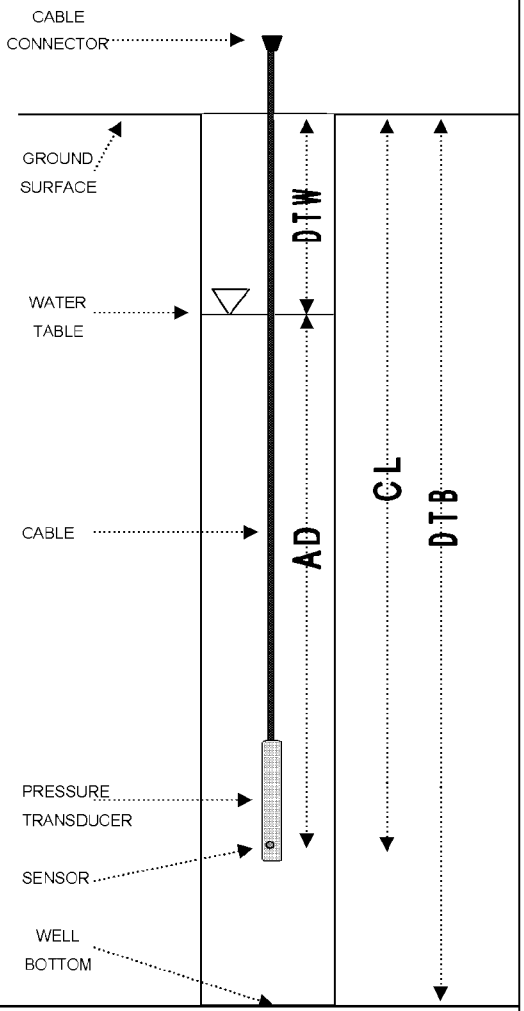
STATIC GROUNDWATER TABLE ELEVATION (FT): 22.43

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	56.00	FT	
GROUND ELEVATION:	70.32	FT M.S.L.	
CASING ELEVATION:	69.81	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.51	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	1351	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	47.38	FT	
ACTUAL DEPTH:	+ 2.56	FT	
THEORETICAL CABLE LENGTH:	= 49.94	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	69.81	FT M.S.L.	
DEPTH TO WATER:	− 47.38	FT	
REFERENCE ELEVATION:	= 22.43	FT M.S.L.	
TEST NAME:	MW47-57		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1352	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	MW-53-82
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	124.70	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	70.26	DATE	8/21/08
PSI CAPACITY	30	CASING ELEVATION (FT)	69.93		
SERIAL NUMBER	11897	CASING DIAMETER (INCH)	2		

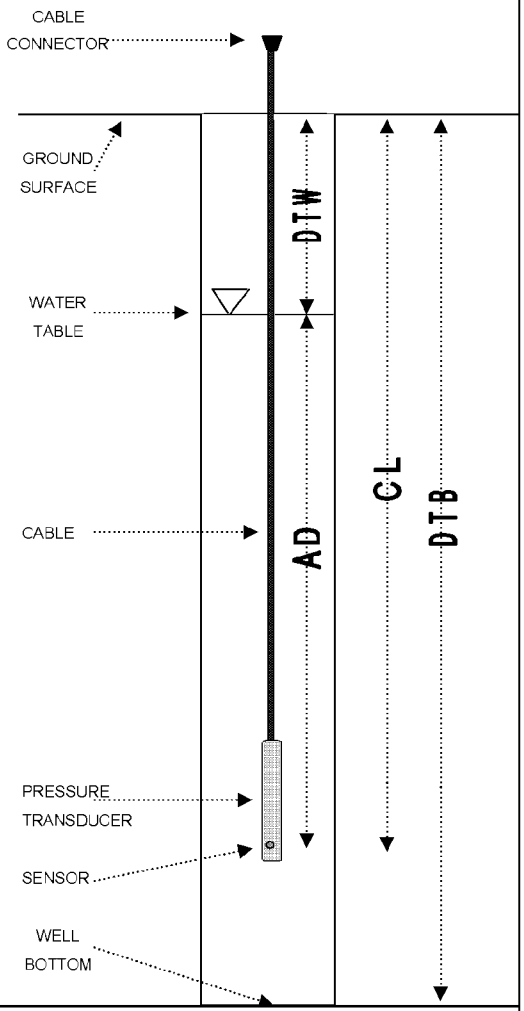
STATIC GROUNDWATER TABLE ELEVATION (FT): 10.67

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	82.00	FT	
GROUND ELEVATION:	70.26	FT M.S.L.	
CASING ELEVATION:	69.93	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.33	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	1104	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	59.26	FT	
ACTUAL DEPTH:	+ 22.495	FT	
THEORETICAL CABLE LENGTH:	= 81.755	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	69.93	FT M.S.L.	
DEPTH TO WATER:	− 59.26	FT	
REFERENCE ELEVATION:	= 10.67	FT M.S.L.	
TEST NAME:	MW-53-82		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1105	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

GZA

WELL ID : MW-53-82

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client Entergy Indian Point Energy Center	WELL ID	MW-53-120
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	124.70	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	70.260	DATE	8/21/08
PSI CAPACITY	30	CASING ELEVATION (FT)	70.190		
SERIAL NUMBER	6097	CASING DIAMETER (INCH)	1		

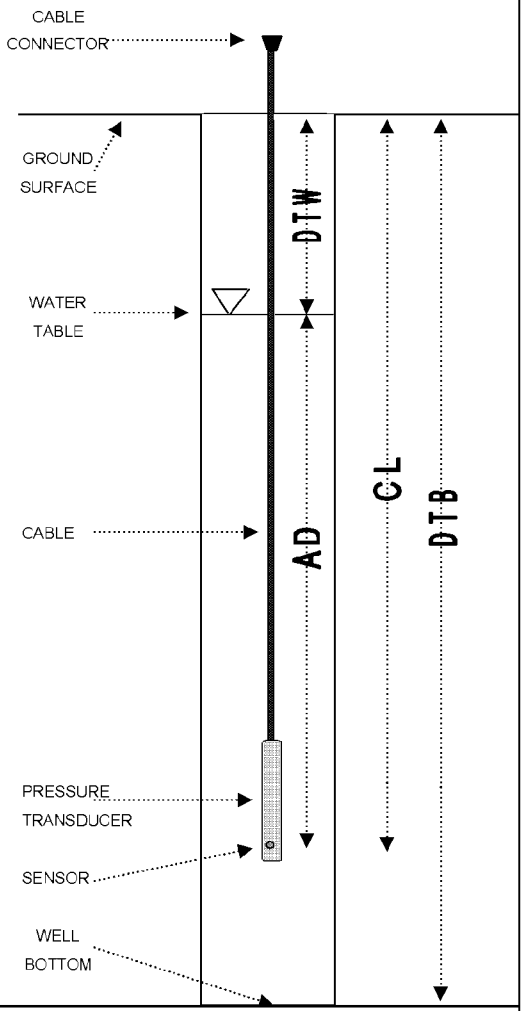
STATIC GROUNDWATER TABLE ELEVATION (FT): 10.43

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	120.00	FT	
GROUND ELEVATION:	70.260	FT M.S.L.	
CASING ELEVATION:	70.190	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.07	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	1122	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	59.76	FT	
ACTUAL DEPTH:	+ 58.573	FT	
THEORETICAL CABLE LENGTH:	= 118.333	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	70.190	FT M.S.L.	
DEPTH TO WATER:	− 59.76	FT	
REFERENCE ELEVATION:	= 10.43	FT M.S.L.	
TEST NAME:	MW53-120		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1123	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

GZA

WELL ID : MW-53-120

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	MW-55-24
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	77.50	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	18.25	DATE	8/14/08
PSI CAPACITY	30	CASING ELEVATION (FT)	17.77		
SERIAL NUMBER		CASING DIAMETER (INCH)	1		

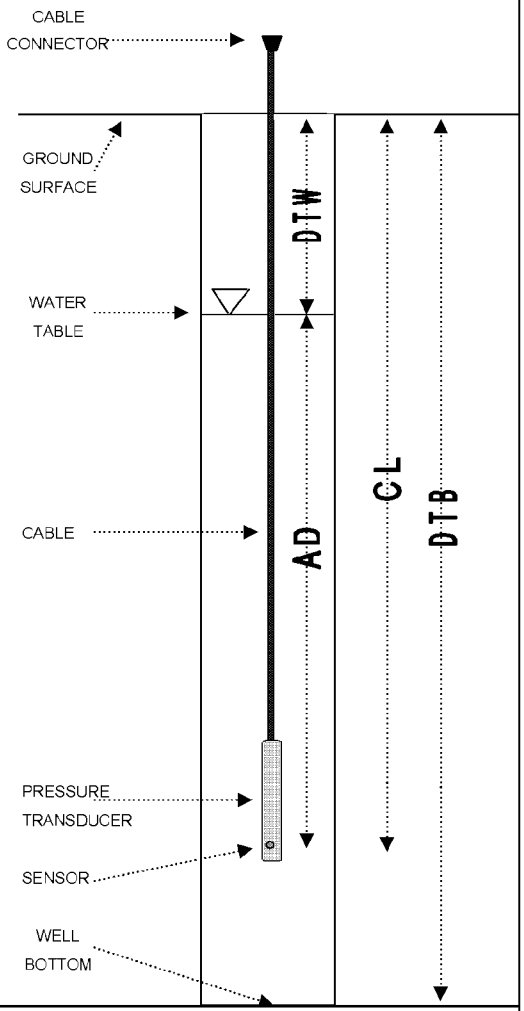
STATIC GROUNDWATER TABLE ELEVATION (FT): 9.92

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	24.00	FT	
GROUND ELEVATION:	18.25	FT M.S.L.	
CASING ELEVATION:	17.77	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.48	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	953	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	7.85	FT	
ACTUAL DEPTH:	+ 7.99	FT	
THEORETICAL CABLE LENGTH:	= 15.84	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	17.77	FT M.S.L.	
DEPTH TO WATER:	− 7.85	FT	
REFERENCE ELEVATION:	= 9.92	FT M.S.L.	
TEST NAME:	MW-55-24		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	954	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	MW-55-35
		SHEET	1 of 1
		FILE NO.	41.0017869.10
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	77.50	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	18.25	DATE	5/15/08
PSI CAPACITY	30	CASING ELEVATION (FT)	17.77		
SERIAL NUMBER	3414	CASING DIAMETER (INCH)	1		

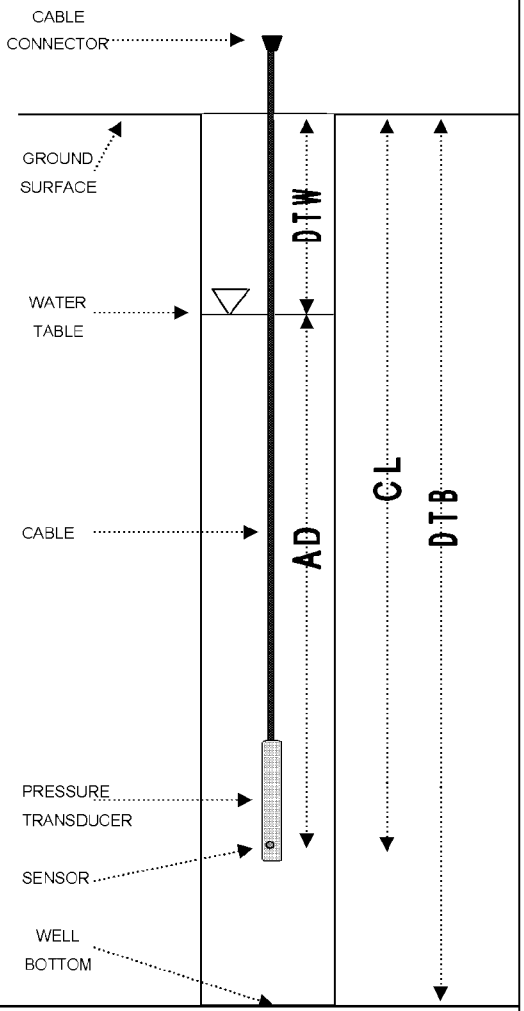
STATIC GROUNDWATER TABLE ELEVATION (FT): 9.93

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	35.00	FT	
GROUND ELEVATION:	18.25	FT M.S.L.	
CASING ELEVATION:	17.77	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.48	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	1226	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	7.84	FT	
ACTUAL DEPTH:	+ 23.83	FT	
THEORETICAL CABLE LENGTH:	= 31.67	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	17.77	FT M.S.L.	
DEPTH TO WATER:	− 7.84	FT	
REFERENCE ELEVATION:	= 9.93	FT M.S.L.	
TEST NAME:	MW-55-35		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1227	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	MW-56-53
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	88.50	DATUM	NGVD 29
MAKE	Non-Vented MiniTroll	GROUND ELEVATION (FT)	70.26	DATE	8/15/08
PSI CAPACITY	30	CASING ELEVATION (FT)	69.32		
SERIAL NUMBER	16499	CASING DIAMETER (INCH)	2		

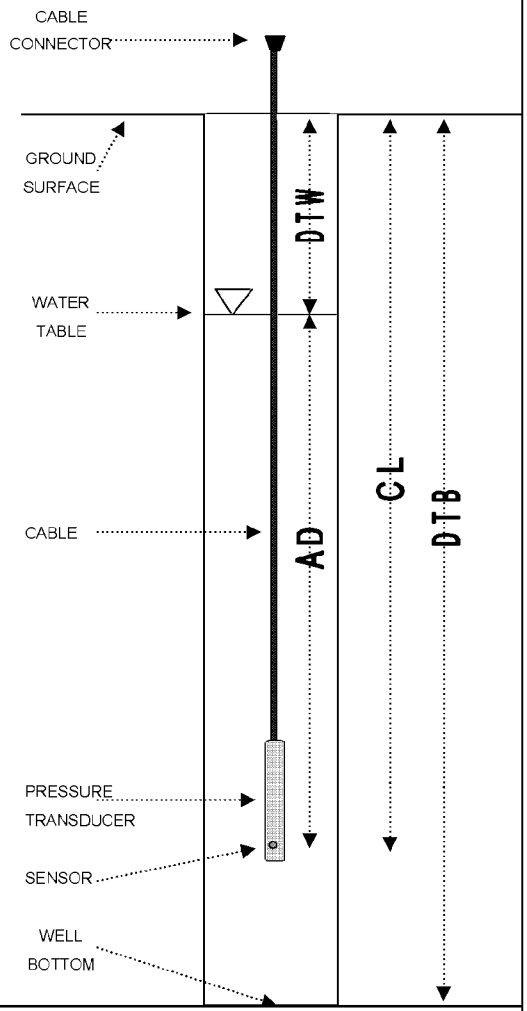
STATIC GROUNDWATER TABLE ELEVATION (FT): 22.44

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	53.00	FT	
GROUND ELEVATION:	70.26	FT M.S.L.	
CASING ELEVATION:	69.32	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.94	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	1436	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	46.88	FT	
ACTUAL DEPTH:	+ NA	FT	
THEORETICAL CABLE LENGTH:	= NA	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	69.32	FT M.S.L.	
DEPTH TO WATER:	− 46.88	FT	
REFERENCE ELEVATION:	= 22.44	FT M.S.L.	
TEST NAME:	MW-56-53		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1437	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

GZA

WELL ID : MW-56-53

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client Entergy Indian Point Energy Center	WELL ID	MW-56-83
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	88.50	DATUM	NGVD 29
MAKE	Non-Vented MiniTroll	GROUND ELEVATION (FT)	70.258	DATE	8/15/08
PSI CAPACITY	30	CASING ELEVATION (FT)	69.207		
SERIAL NUMBER	16394	CASING DIAMETER (INCH)	1		

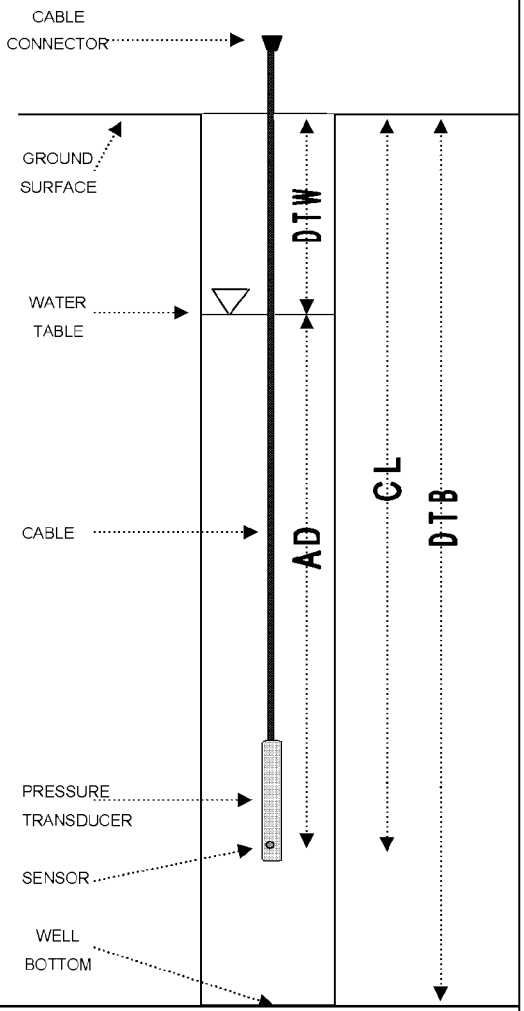
STATIC GROUNDWATER TABLE ELEVATION (FT): 22.29

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	83.00	FT	
GROUND ELEVATION:	70.258	FT M.S.L.	
CASING ELEVATION:	69.207	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-1.05	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	1424	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	46.92	FT	
ACTUAL DEPTH:	+ NA	FT	
THEORETICAL CABLE LENGTH:	= NA	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	69.207	FT M.S.L.	
DEPTH TO WATER:	− 46.92	FT	
REFERENCE ELEVATION:	= 22.287	FT M.S.L.	
TEST NAME:	MW-56-83		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1425	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

GZA

WELL ID : MW-56-83

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	MW-57-11
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	46.50	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	14.98	DATE	5/5/08
PSI CAPACITY	30	CASING ELEVATION (FT)	14.73		
SERIAL NUMBER	3078	CASING DIAMETER (INCH)	1		

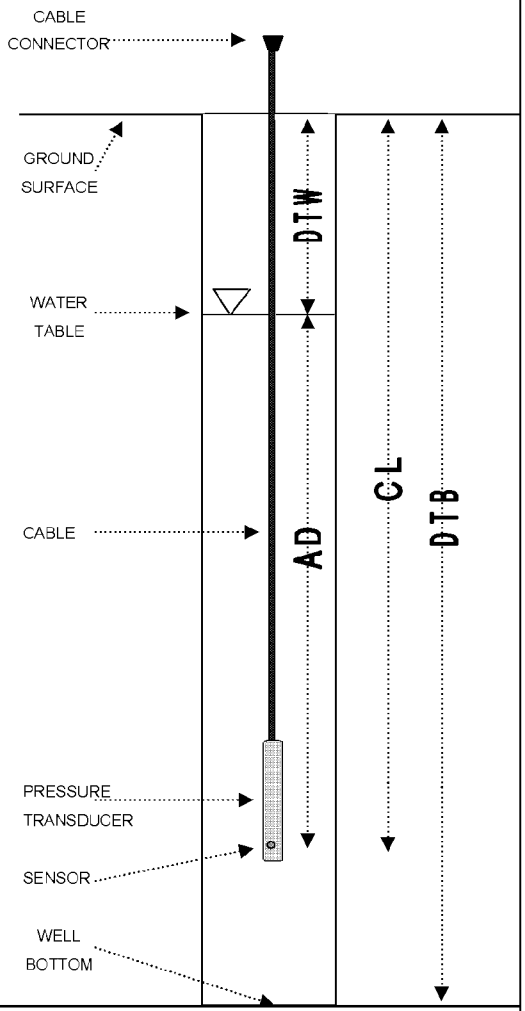
STATIC GROUNDWATER TABLE ELEVATION (FT): 10.25

GZA ENGINEER: M. Britos/ A. Altieri

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:		11.00	FT
GROUND ELEVATION:		14.98	FT M.S.L.
CASING ELEVATION:		14.73	FT M.S.L.
CASING ABOVE (+) OR BELOW (-) GROUND:		below	
DISTANCE FROM CASING TO GROUND (+ OR -):		-0.25	FT
MEASURED CABLE LENGTH:		--	FT
TIME OF MEASUREMENT:		1500	HRS
MEASUREMENT TAKEN FROM:		TOC	
DEPTH TO WATER:		4.48	FT
ACTUAL DEPTH:	+	NA	FT
THEORETICAL CABLE LENGTH:	=	NA	FT
HAVE CLOCKS BEEN SYNCHRONIZED?		☑	check
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?		☑	check
ELEVATION OF MEASURING POINT:		14.73	FT M.S.L.
DEPTH TO WATER:	−	4.48	FT
REFERENCE ELEVATION:	=	10.25	FT M.S.L.
TEST NAME:		MW-57-11	
LOGGING INTERVAL:		20	MIN
TEST START TIME:		1501	HRS



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

GZA

WELL ID : MW-57-11

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	MW-58-26
		SHEET	1 of 1
		FILE NO.	41.0017869.10
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	72.00	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	14.57	DATE	5/8/08
PSI CAPACITY	30	CASING ELEVATION (FT)	14.23		
SERIAL NUMBER	3114	CASING DIAMETER (INCH)	2		

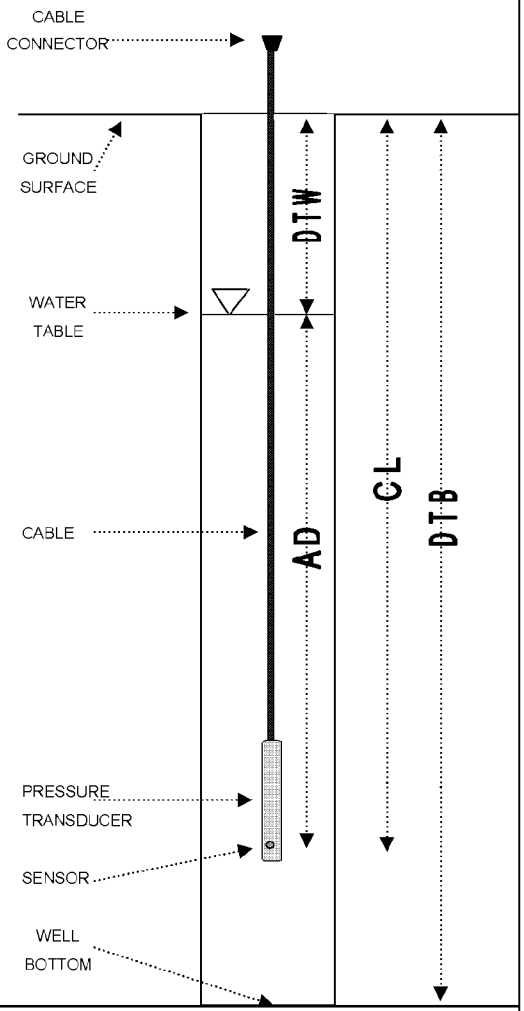
STATIC GROUNDWATER TABLE ELEVATION (FT): 7.77

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	26.00	FT	
GROUND ELEVATION:	14.57	FT M.S.L.	
CASING ELEVATION:	14.23	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.34	FT	
	--	FT	
TIME OF MEASUREMENT:	1403	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	6.46	FT	
ACTUAL DEPTH: +	18.672	FT	
THEORETICAL CABLE LENGTH: =	25.132	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	14.23	FT M.S.L.	
DEPTH TO WATER: −	6.46	FT	
REFERENCE ELEVATION: =	7.77	FT M.S.L.	
TEST NAME:	MW-58-26		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1404	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client Entergy Indian Point Energy Center	WELL ID	MW-59-45
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	77.00	DATUM	NGVD 29
MAKE	NonVented MiniTroll	GROUND ELEVATION (FT)	14.52	DATE	8/13/08
PSI CAPACITY	30	CASING ELEVATION (FT)	13.90		
SERIAL NUMBER	14340	CASING DIAMETER (INCH)	1		

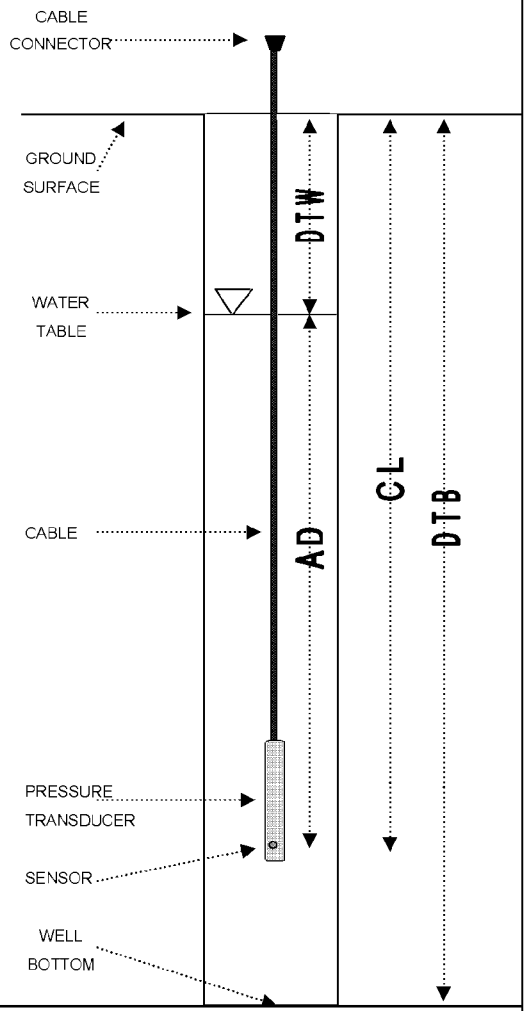
STATIC GROUNDWATER TABLE ELEVATION (FT): 3.36

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	45.00	FT	
GROUND ELEVATION:	14.52	FT M.S.L.	
CASING ELEVATION:	13.90	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.62	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	1039	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	10.54	FT	
ACTUAL DEPTH: +	-	FT	
THEORETICAL CABLE LENGTH: =	NA	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	13.90	FT M.S.L.	
DEPTH TO WATER: −	10.54	FT	
REFERENCE ELEVATION: =	3.36	FT M.S.L.	
TEST NAME:	TEST#5		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1040	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client Entergy Indian Point Energy Center	WELL ID	MW65-48
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	48.00	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	69.723	DATE	4/4/08
PSI CAPACITY	30	CASING ELEVATION (FT)	68.856		
SERIAL NUMBER	13993	CASING DIAMETER (INCH)	2		

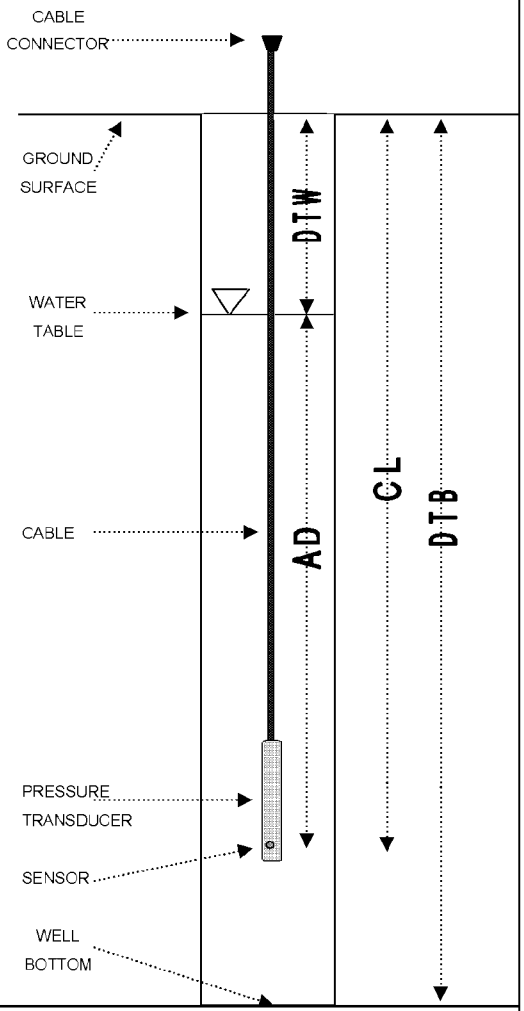
STATIC GROUNDWATER TABLE ELEVATION (FT): 38.48

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	48.00	FT	
GROUND ELEVATION:	69.723	FT M.S.L.	
CASING ELEVATION:	68.856	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.867	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	932	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	30.38	FT	
ACTUAL DEPTH:	+ 9.937	FT	
THEORETICAL CABLE LENGTH:	= 40.317	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	68.856	FT M.S.L.	
DEPTH TO WATER:	− 30.38	FT	
REFERENCE ELEVATION:	= 38.476	FT M.S.L.	
TEST NAME:	MW65-48		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	933	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client Entergy Indian Point Energy Center	WELL ID	MW65-80
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	80.00	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	69.723	DATE	4/4/08
PSI CAPACITY	30	CASING ELEVATION (FT)	68.841		
SERIAL NUMBER	8264	CASING DIAMETER (INCH)	1		

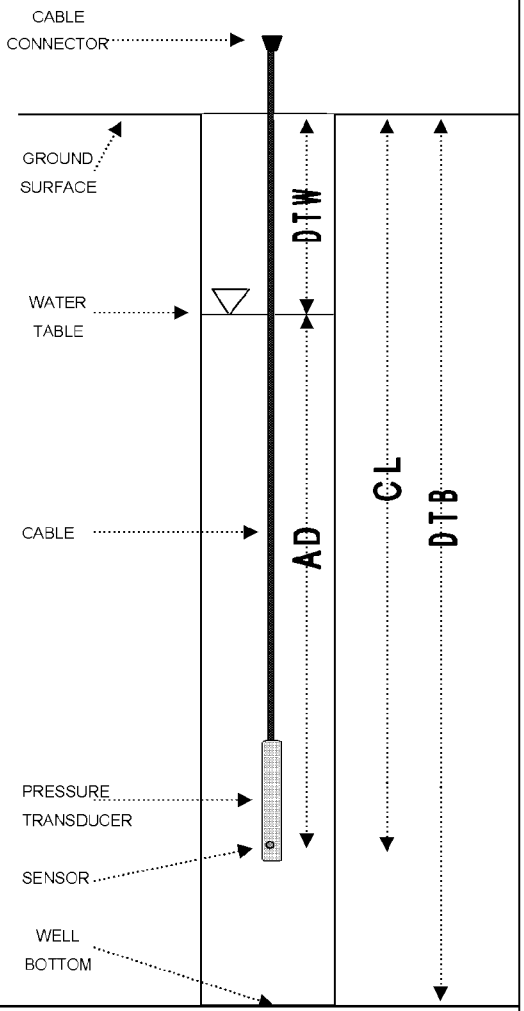
STATIC GROUNDWATER TABLE ELEVATION (FT): 34.89

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:		80.00	FT
GROUND ELEVATION:		69.723	FT M.S.L.
CASING ELEVATION:		68.841	FT M.S.L.
CASING ABOVE (+) OR BELOW (-) GROUND:		below	
DISTANCE FROM CASING TO GROUND (+ OR -):		-0.882	FT
MEASURED CABLE LENGTH:		--	FT
TIME OF MEASUREMENT:		943	HRS
MEASUREMENT TAKEN FROM:		TOC	
DEPTH TO WATER:		33.95	FT
ACTUAL DEPTH:	+	38.161	FT
THEORETICAL CABLE LENGTH:	=	72.111	FT
HAVE CLOCKS BEEN SYNCHRONIZED?		☑	check
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?		☑	check
ELEVATION OF MEASURING POINT:		68.841	FT M.S.L.
DEPTH TO WATER:	−	33.95	FT
REFERENCE ELEVATION:	=	34.891	FT M.S.L.
TEST NAME:		MW65-80	
LOGGING INTERVAL:		20	MIN
TEST START TIME:		944	HRS



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client Entergy Indian Point Energy Center	WELL ID	MW-107
		SHEET	1 of 1
		FILE NO.	41.0017869.10
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	37.90	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	140.061	DATE	5/16/08
PSI CAPACITY	30	CASING ELEVATION (FT)	142.757		
SERIAL NUMBER	5746	CASING DIAMETER (INCH)	2		

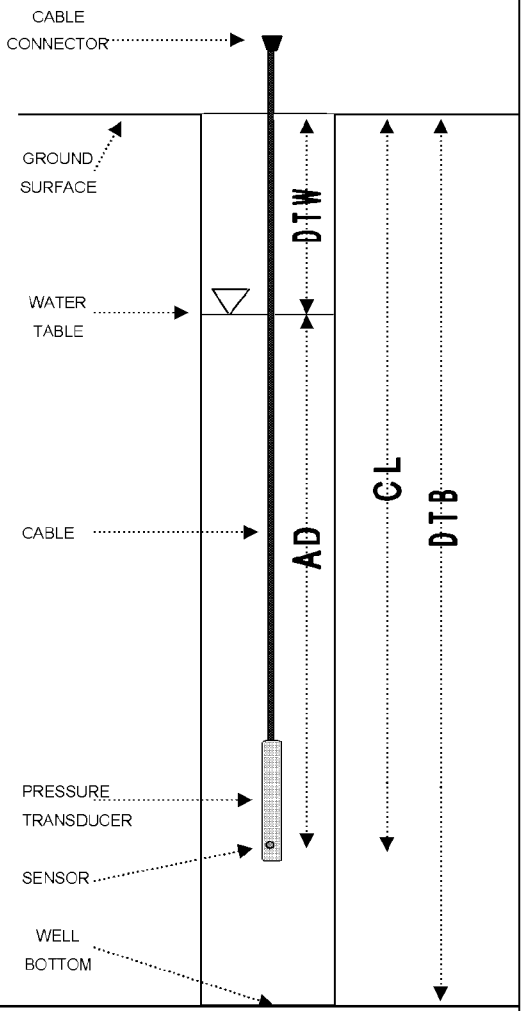
STATIC GROUNDWATER TABLE ELEVATION (FT): 117.63

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:		37.90	FT
GROUND ELEVATION:		140.061	FT M.S.L.
CASING ELEVATION:		142.757	FT M.S.L.
CASING ABOVE (+) OR BELOW (-) GROUND:		above	
DISTANCE FROM CASING TO GROUND (+ OR -):		2.696	FT
MEASURED CABLE LENGTH:		--	FT
TIME OF MEASUREMENT:		1509	HRS
MEASUREMENT TAKEN FROM:		TOC	
DEPTH TO WATER:		25.13	FT
ACTUAL DEPTH:	+	12.840	FT
THEORETICAL CABLE LENGTH:	=	37.970	FT
HAVE CLOCKS BEEN SYNCHRONIZED?		☑	check
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?		☑	check
ELEVATION OF MEASURING POINT:		142.757	FT M.S.L.
DEPTH TO WATER:	−	25.13	FT
REFERENCE ELEVATION:	=	117.627	FT M.S.L.
TEST NAME:		MW-107	
LOGGING INTERVAL:		20	MIN
TEST START TIME:		1510	HRS



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	MW-108
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	11.90	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	14.48	DATE	8/13/08
PSI CAPACITY	30	CASING ELEVATION (FT)	14.23		
SERIAL NUMBER	20738	CASING DIAMETER (INCH)	4		

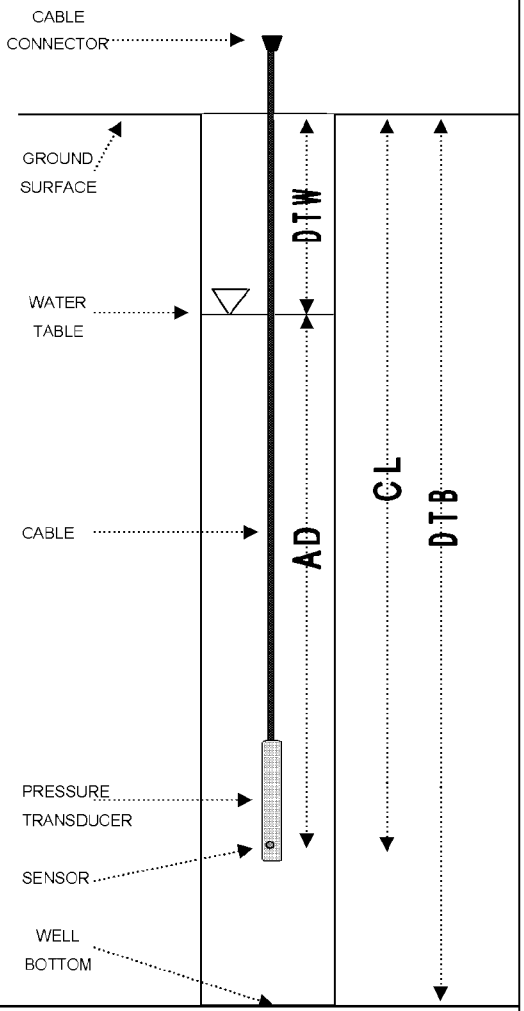
STATIC GROUNDWATER TABLE ELEVATION (FT): 9.36

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	11.60	FT	
GROUND ELEVATION:	14.48	FT M.S.L.	
CASING ELEVATION:	14.23	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.25	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	829	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	4.87	FT	
ACTUAL DEPTH: +	6.40	FT	
THEORETICAL CABLE LENGTH: =	11.27	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	14.23	FT M.S.L.	
DEPTH TO WATER: −	4.87	FT	
REFERENCE ELEVATION: =	9.36	FT M.S.L.	
TEST NAME:	MW-108		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	830	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

GZA

WELL ID : MW-108

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	MW-111
		SHEET	1 of 1
		FILE NO.	41.0017869.10
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	17.70	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	18.93	DATE	5/15/08
PSI CAPACITY	30	CASING ELEVATION (FT)	18.38		
SERIAL NUMBER	6767	CASING DIAMETER (INCH)	2		

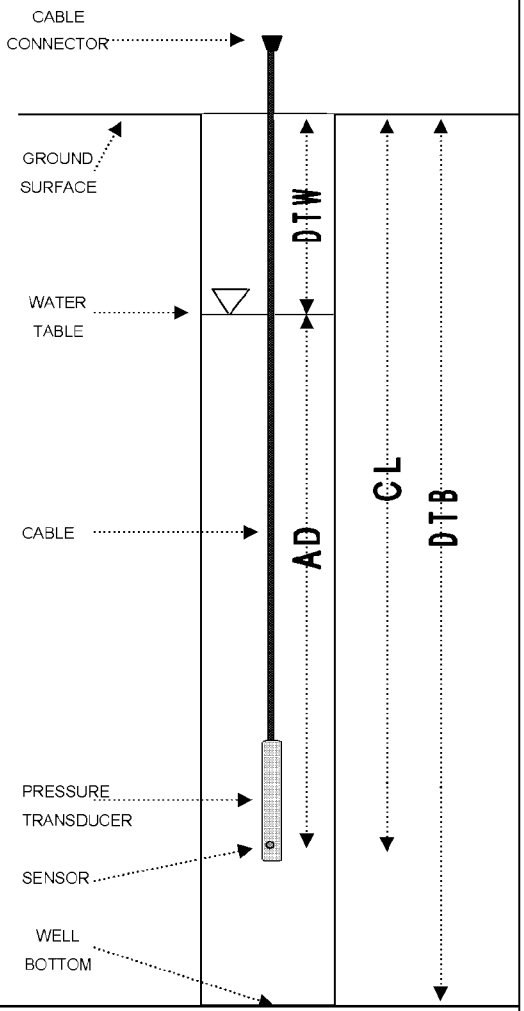
STATIC GROUNDWATER TABLE ELEVATION (FT): 9.81

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	17.70	FT	
GROUND ELEVATION:	18.93	FT M.S.L.	
CASING ELEVATION:	18.38	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.55	FT	
	--	FT	
TIME OF MEASUREMENT:	1152	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	8.57	FT	
ACTUAL DEPTH: +	6.89	FT	
THEORETICAL CABLE LENGTH: =	15.46	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	18.38	FT M.S.L.	
DEPTH TO WATER: −	8.57	FT	
REFERENCE ELEVATION: =	9.810	FT M.S.L.	
TEST NAME:	MW-111		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1153	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	I-2
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	41.00	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	80.92	DATE	5/16/08
PSI CAPACITY	30	CASING ELEVATION (FT)	82.23		
SERIAL NUMBER	11972	CASING DIAMETER (INCH)	2		

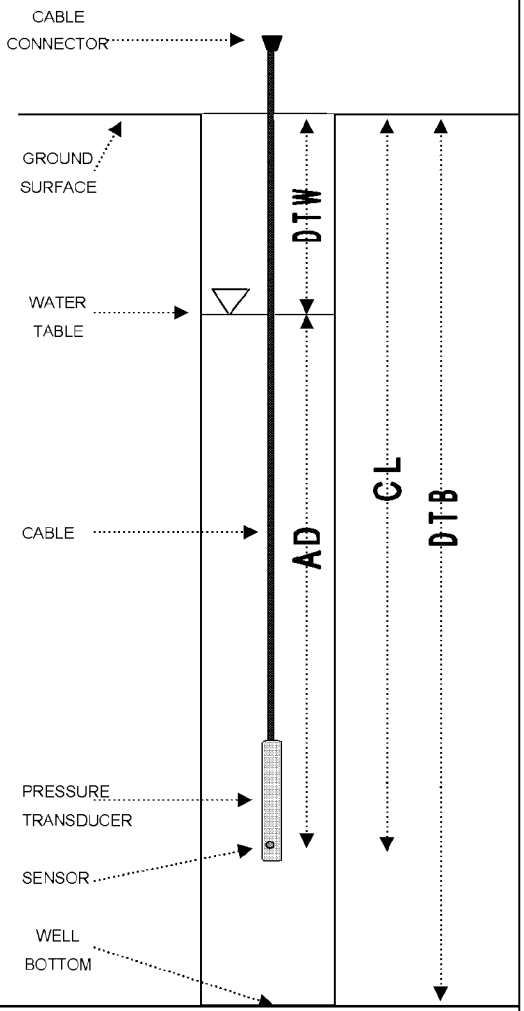
STATIC GROUNDWATER TABLE ELEVATION (FT): 51.48

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	41.00	FT	
GROUND ELEVATION:	80.92	FT M.S.L.	
CASING ELEVATION:	82.23	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	above		
DISTANCE FROM CASING TO GROUND (+ OR -):	1.31	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	953	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	30.75	FT	
ACTUAL DEPTH:	+ 9.800	FT	
THEORETICAL CABLE LENGTH:	= 40.550	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	82.23	FT M.S.L.	
DEPTH TO WATER:	− 30.75	FT	
REFERENCE ELEVATION:	= 51.48	FT M.S.L.	
TEST NAME:	I-2		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	954	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	I-2
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	41.00	DATUM	NGVD 29
MAKE	MiniTroll	GROUND ELEVATION (FT)	80.92	DATE	5/16/08
PSI CAPACITY	30	CASING ELEVATION (FT)	82.23		
SERIAL NUMBER	11972	CASING DIAMETER (INCH)	2		

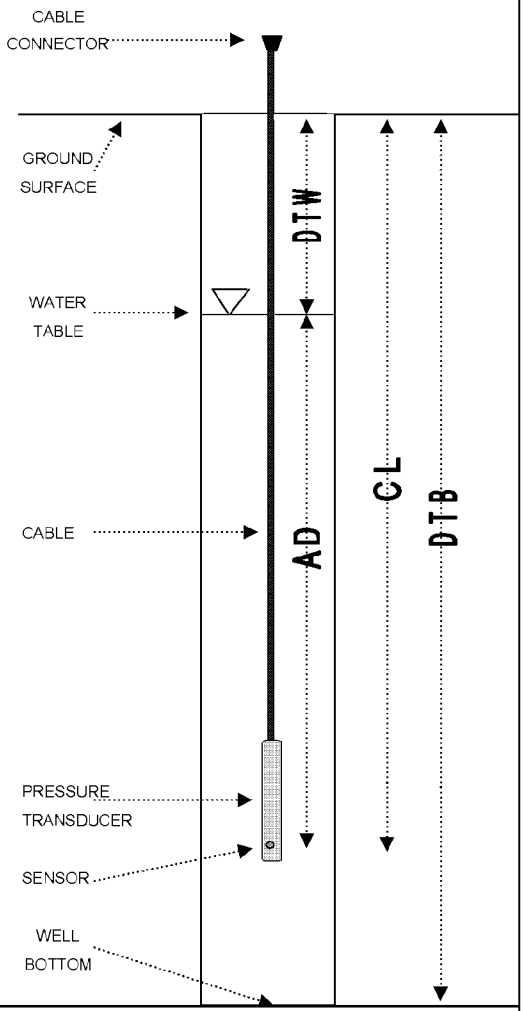
STATIC GROUNDWATER TABLE ELEVATION (FT): 52.61

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	41.00	FT	
GROUND ELEVATION:	80.92	FT M.S.L.	
CASING ELEVATION:	82.23	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	above		
DISTANCE FROM CASING TO GROUND (+ OR -):	1.31	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	1358	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	29.62	FT	
ACTUAL DEPTH:	+ 10.324	FT	
THEORETICAL CABLE LENGTH:	= 39.944	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	82.23	FT M.S.L.	
DEPTH TO WATER:	− 29.62	FT	
REFERENCE ELEVATION:	= 52.61	FT M.S.L.	
TEST NAME:	I-2		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1351	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

TRANSDUCER INSTALLATION LOG

GZA GEOENVIRONMENTAL OF NEW YORK 440 NINTH AVENUE, 18th FLOOR NEW YORK, NEW YORK 10001 SCIENTISTS AND ENGINEERS	Client: Entergy Indian Point Energy Center	WELL ID	U3-2
		SHEET	1 of 1
		FILE NO.	01.0017869.91
		PROJECT LOCATION	Indian Point

MANUFACTURER	In-Situ	FINAL BORING DEPTH (FT)	14.61	DATUM	NGVD 29
MAKE	Nonvented MiniTroll	GROUND ELEVATION (FT)	14.310	DATE	6/2/08
PSI CAPACITY	30 PSIA	CASING ELEVATION (FT)	14.114		
SERIAL NUMBER	16409	CASING DIAMETER (INCH)	6		

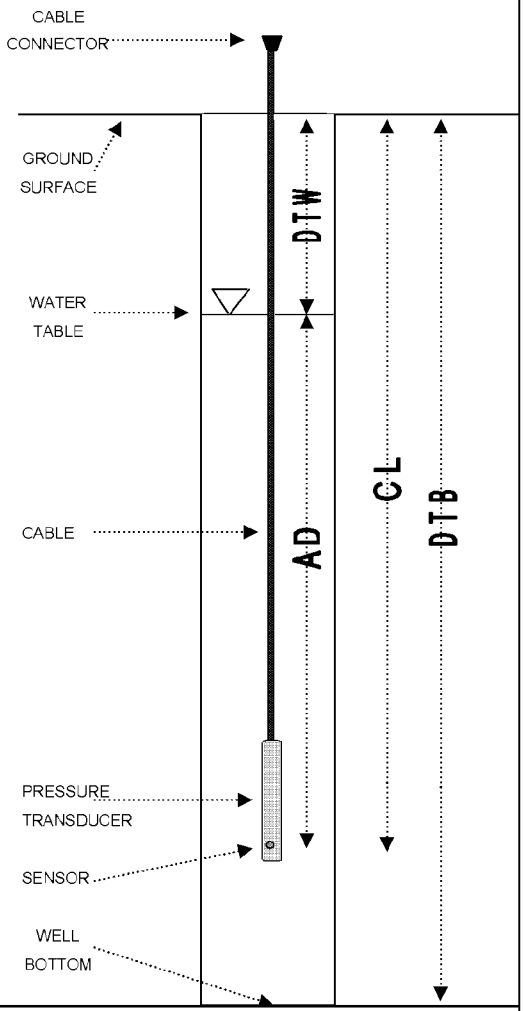
STATIC GROUNDWATER TABLE ELEVATION (FT): 5.24

GZA ENGINEER: M. Britos

ELEVATION OF MEASURING POINT - DEPTH TO WATER = REFERENCE ELEVATION (WATER TABLE ELEVATION)

DEPTH TO WATER + ACTUAL DEPTH = CABLE LENGTH (if transducer is functioning properly)

DEPTH TO BOTTOM:	14.61	FT	
GROUND ELEVATION:	14.310	FT M.S.L.	
CASING ELEVATION:	14.114	FT M.S.L.	
CASING ABOVE (+) OR BELOW (-) GROUND:	below		
DISTANCE FROM CASING TO GROUND (+ OR -):	-0.20	FT	
MEASURED CABLE LENGTH:	--	FT	
TIME OF MEASUREMENT:	1218	HRS	
MEASUREMENT TAKEN FROM:	TOC		
DEPTH TO WATER:	8.87	FT	
ACTUAL DEPTH:	+ NA	FT	
THEORETICAL CABLE LENGTH:	= NA	FT	
HAVE CLOCKS BEEN SYNCHRONIZED?	☑	check	
IS TRANSDUCER SET TO TAKE "SURFACE" READINGS?	☑	check	
ELEVATION OF MEASURING POINT:	14.114	FT M.S.L.	
DEPTH TO WATER:	− 8.87	FT	
REFERENCE ELEVATION:	= 5.244	FT M.S.L.	
TEST NAME:	U3-2		
LOGGING INTERVAL:	20	MIN	
TEST START TIME:	1219	HRS	



LEGEND:
DTW - DEPTH TO WATER
DTB - DEPTH TO BOTTOM OF WELL
AD - ACTUAL DEPTH OF TRANSDUCER UNDER WATER
CL - CABLE LENGTH FROM SENSOR TO GROUND SURFACE/ TOP OF CASING

NOTES:

APPENDIX C: CHAINS OF CUSTODY

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

Page: 1 of 1

Project: Entergy Ground Water Monitoring Prog

TE Quote #:

GEL Service #:

PO Number: 6813510

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy

Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center

Fax #: (914) 734-6247

Address: 456 Broadway, Suite 3, Buchanan NY 10511

Collected by: Miguel Brito

Send Results To: Patrick Donahue

Sample Analysis Requested (Fill in the number of containers for each test)

Sample ID (*Use composite - indicate start and end date/time)	*Date Collected (mm/dd/yy)	*Time Collected (Military) (Hours)	# of Cont.	Field Filtered	Sample Matrix**	Must be analyzed for compliance	Sample Preparation	Total number of containers	Tritium (H3)	Gamma Spec (Co-60, Cs-137)	Strontium-90 (Sr-90)	Nickel-63 (Ni-63)	Preservative Type (6)
IT-GSS-0007	05/12/08	1405	N	N	GW	Y	Y	3	1	1	1	1	1 Gal Poly

Comments
Note: Extra sample is required for sample specific QC

TAT Requested: Normal ✓ Rush Specify: (Subject to Surcharge) Fax Results: Yes / No

Circle Deliverable: 1 of A - QC Summary Level II (Std) / Level III Level IV

Remarks: Are there any known hazards applicable to these samples? If so please list the hazards

Sample Collection Time Zone: Eastern / Central / Mountain / Pacific / Other

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (Signed)	Date	Time
Miguel Brito	5/12/08	1600	SECURED STORAGE	5/12/08	1600

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX

Date Shipped:

Airbill #:

Airbill #:

Custody Seal Intact? Yes / No

Cooler Temp: °C

Chain of Custody Number: (Lab Determined)

QC Codes: N - Normal Sample, FB - Field Blank, EB - Equipment Blank, MS - Matrix Spike Sample, MSD - Matrix Spike Duplicate Sample, SC - Surrogate, C - Composite, Field Filtered - To be completed in the field if sample was filtered (Yes or No), Sample Matrix: DW - Drinking Water, GW - Ground Water, SW - Surface Water, WW - Waste Water, W - Water, SO - Soil, SD - Sediment, SL - Sludge, SS - Solid Waste, O - Oil, P - Pipe, P - Paint, P - Pipe (Y - Yes, F - Final, N - None), Sample Analysis Requested: Fill in the number of containers for each test, Preservative Type: HA - Nitric Acid, NI - Nitric Acid, SH - Sodium Bisulfate, SA - Sulfuric Acid, AA - Ascorbic Acid, HX - Hexane, SH - Sodium Thiosulfate, Non-preservative = water, Other/Filtered

WHITE - LABORATORY YELLOW - FILE PINK - CLIENT

IPEC00201837

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

Page: 1 of 1

Report #: Entergy Ground Water Monitoring Prog

P.O. #:

QA Number:

GEL Quote: 20013511

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: 843-556-8171
Fax: 843-766-1178

Client Name: Entergy — Phone #: (914) 736-8405

Project Site Name: Indian Point Energy Center — Fax #: (914) 734-6247

Address: 450 Broadway, Bldg 3, Buchanan NY 10511

Collected by: Miguel Brutos — Send Results To: Patrick Donahue

Sample Analysis Requested (Fill in the number of containers for each test)

Sample ID (* Please use unique identifiers (such as IDs) and not descriptions)	*Date Collected (mm/dd/yy)	*Time Collected (Military) (hhmm)	QC Code	Field Filtered	Sample Matrix	Radioactive	RSA Regulated	Total number of containers used	Tritium (H3)	Gamma Spec (GS)	Strontium-90 (Sr90)	Nickel-63 (Ni63)	Preservative Type (HNO3)	Comments: Note: extra sample is required for sample specific QC
MA-50-06-1015	5/12/08	1540	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly

TAT Requested: Normal ✓ Rush — Specify: (Surcharges will be applied to Rush requests) — Has Results: Yes — Fax — Email — Hardcopy — Both — Quote # — Data Deliverable: Std A — DV Summary — Level 3 — Level 4 — EDD #

Remarks: (Are there any known hazards applicable to these samples? If so, please list the hazards)

Shipping Coolers Temperature (Check): Receipt — Blank — Central — Blank — Mountain

Chain of Custody Signatures

Relinquished by: (Signed)	Date	Time	Received by: (Signed)	Time	Time
[signature]	5/12/08	1600	SECURED STORAGE	5/12/08	1600
2					
3					

Sample Shipping and Delivery Details

Shipped/Delivered For Analysis By: 4:30 PM Cheryl Duffy

Method of Shipment: FEDEX — Date Shipped:

Airbill #:

Additional Shipment Details:

Cooler Temperature on Receipt: °C

Custody Seals Intact? Yes / No / N/A

Cooler Custody Seals: Yes / No / N/A

Sample Receipt Checklist

Comments/Discrepancies:

Chain of Custody Attached: Yes / No / N/A

Sample Labels Present on Bottles: Yes / No / N/A

Container Labels Legible and Intact: Yes / No / N/A

Sample Matrix and Preservative Agree: Yes / No / N/A

Collection Dates/Times Provided: Yes / No / N/A

Appropriate Containers Received: Yes / No / N/A

Sufficient Quantity: Yes / No / N/A

Bottles Received for Unspecified Tests: Yes / No / N/A

Sufficient Holding Time: Yes / No / N/A

Received on Ice: Yes / No / N/A

Custody Seals Intact on Shipping Container/Cooler: Yes / No / N/A

Analysis Requested: Yes / No / N/A

Bottles Requiring pH Adjustment: Yes / No / N/A

Adjusted by/Date:

Login Completed By:

Date/Time:

Comments:

Client Name Abbreviation (Optional)

GW = Groundwater, SW = Surface Water, WW = Wastewater, W = Water, SL = Sludge, SS = Solid/Waste, [illegible], P = Wipe, F = Filter Blank, S = Soil

Sample Receipt Temperature: Acceptable if cooler temperature is between 2 and 6°C unless received on ice the same day as collected.

Preservative Type: HA = Nitric Acid, NO = None, SA = Sulfuric Acid, AA = Ascorbic Acid, BA = Sodium Bisulfate, Other (please specify) (see Field Blank)

WHITE = LABORATORY — YELLOW = FILE — PINK = CLIENT

IPEC00201838

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Page 1 of 1

Project: Entergy / Grand Gulf Monitoring Prog

PO#: 502510

Client Name: Entergy — Phone #: (914) 736-8405

Project Site Name: Indian Point Energy Center — Fax #: (914) 734-8247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected By: Miguel Bustos — Send Results To: Patrick Donahue

Sample Analysis Requested (Fill in the number of containers for each test)

Sample ID (Matrix, Collection Date/Time, Collection Method)	Date Collected	Time Collected (Military)	# of Cont.	Field Filtered	Sample Matrix	Radioactive	RCRA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GCS)	Strontium 90 (Sr90)	Nickel 63 (Ni63)	<-- Preservative Type (6)
MW-42 49 (010)	05/13/08	1320	N	N	GW	Y	Y	1	1	1	1	1	1 Gal Poly

Comments: Note: extra sample is required for sample-specific QC

TAT Requested: Normal ✓ Rush ____ Specify ____ Designate Surcharge ____ Data Results: Fax ____ No ✓

Circle Deliverable: COA / QC Summary / Level II / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Sample Collection Time Zone: Eastern ✓ Pacific / Central / Other / Mountain

Chain of Custody Signatures

Relinquished By (signature)	Date	Time	Received By (signature)	Date	Time
Miguel A Bustos	5/13/08	1530	SECURED STORAGE	5/13/08	1530
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FedEx — Date Shipped:

Airbill #:

Airbill #:

For Lab Receiving Use Only

Custody Seal Intact? YES / NO

Cooler Temp: °C

1) Check one box. Note: Codes Determined

2) Check one box. Matrix: GW - Groundwater, WW - Wastewater, DW - Drinking Water, SW - Surface Water, SO - Soil, SD - Solid, SL - Sludge, SS - Solid Waste, O - Oil, A - Air, F - Filter, P - Wipe, U - Urine, T - Tissue, V - Vomit

3) Write in Sample Matrix if other than listed in 2). Field Filtered: Y = Yes, N = No

4) Write in Preservative Type. HN - Nitric Acid, SH - Sodium Hydroxide, SA - Sulfuric Acid, AA - Ascorbic Acid, ZA - Zinc Acetate. If no preservative added, leave blank.

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201839

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Page 1 of 1
Project: Entergy Grand Gulf Monitoring Proj
Sub Contract #:
PWSID/NPDES #:
Purchase Order #: 500/13520

Client Name: Entergy — Phone #: (914) 730-8406
Client Site Name: Indian Point Energy Center — Fax #: (914) 734-6247
Address: 440 Broadway Suite 3, Buchanan, NY 10511
Collected By: Miguel Brito — Send Results To: Patrick Donahue

Sample Analysis Requested (Fill in the number of containers for each test)

Sample ID (Lab Use Only)	Date Collected (mm dd yy)	Time Collected (Military) (hhmm)	Composite? (Y or N)	Field Filtered?	Sample Matrix	Radioactive	RCRA Regulated	Field number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium-90 (Sr-90)	Nickel-63 (Ni-63)	Comments / Preservation Type (G)
MW-53-120(0087)	05/13/08	1010	N	N	GW	Y	Y	1	1	1	1	1	1 Gal Poly

Comments: Note: extra sample is required for sample specific QC

TAT Requested (Initial): ✓ Rush — Specify: — Deliverables: — Data Results: Yes — Cash Deliverable: Cat A - Cat B Summary / Level I and 2 - Level I - Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards.*

Sample Collection Time Zone
Eastern — Pacific
Central — Other
Mountain

Chain of Custody Signatures

Relinquished By (Sampler)	Date	Time	Received By (Signed)	Date	Time
1 Miguel Brito	5/13/08	1530	SECURED STORAGE	5/13/08	1530
2					
3					

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy
Method of Shipment: FEDEX — Date Shipped:
Airbill #:
Airbill #:

For Lab Receiving Use Only
Custody Seal Intact? — IR# — Yes/No
Cooler Temp: — °C

1) Type of Collection: Grab or Composite

2) Q Codes: N - Normal Sample, TB - Trip Blank, FB - Field Replicate, EB - Equipment Blank, MS - Matrix Spike Sample, MSD - Matrix Spike Duplicate Sample, G - Grab, C - Composite

3) Field Filtered: Indicate whether sample was field filtered or not (i.e. for sample analysis of dissolved metals)

4) Matrix Codes: DW - Drinking Water, GW - Groundwater, SW - Surface Water, WW - Waste Water, W - Water, Ml - Wet Sludge, Sl - Dry Sludge, S - Soil, SD - Solid, SL - Sludge, O - Oil, A - Air, B - Bioassay, F - Filter, V - Vegetation

5) Analysis Requested: Indicate the number of containers for each test (i.e. 824(2) = 2 containers - 1)

6) Preservation Codes: H - Nitric Acid, N - None, S - Sulfuric Acid, NO - Sodium Hydroxide, SA - Sulfamic Acid, AA - Ascorbic Acid, B - Borax, ST - Sodium Thiosulfate, O - Other (Specify)

WHITE - LABORATORY — YELLOW - FILE — PINK - CLIENT

IPEC00201840

Page 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [1]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy — Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: Miguel Britos — Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	Preservative Type [6]	Comments
MW-51-40-(007)	05/30/08	1027	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-51-79-(007)	05/30/08	1055	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly

Note: extra sample is required for sample specif QC

TAT Requested: Normal: ✓ Rush: Specify: (Subject to Surcharge) — Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
(Eastern) Pacific
Central Other
Mountain

Chain of Custody Signatures

	Relinquished By (signed)	Date	Time	Received by (signed)	Date	Time
1	Miguel Britos	5/30/08	1630	SECURED STORAGE	5/30/08	1630
2						
3						

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX — Date Shipped:

Airbill #:

Airbill #:

1) Chain of Custody Number - Client Determined

2) QC Codes: N - Normal Sample, TB - Trip Blank, FD- Field Duplicate, EB - Equipment Blank, MS- Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C= Composite

3) Field Filtered - For Liquid matrices, indicate with a Y = for yes the sample was field filtered or N = for sample was not field filtered

4) Matrix Codes: DW-Drinking Water, GW-Groundwater, SW- Surface Water, WW-Waste Water, W- Water, ML= Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F- Filter, P=Wipe, U= Urine, F- Fecal, N- Nasal

5) Sample Analysis Requested - Analytical method requested (i.e. 8260B, b010B/7470Aand number of containers provided for each (i.e. 8260B- 3, 6010B/7470A - 1)

6) Preservative Type: HA- Hydrochloric Acid, NI - Nitric Acid, SH- Sodium Hydroxide, SA - Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added - leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp.
°C

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

IPEC00201841

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Proc
GEL Quote #
COC Number (1):
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: Miguel Britos Send Results To: Patrick Donahue

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radionative	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr-90)	Preservative Type (6) / Comments
MW-40-100-(006)	05/30/08	1245	N	N	GW	Y	Y	1	1	1	1	1 Gal Poly
MW-40-127-(006)	05/30/08	1300	N	N	GW	Y	Y	1	1	1	1	1 Gal Poly

Comments: Note: extra sample is required for sample specifi QC

TAT Requested: Normal: ✓ Rush Specify (Subject to Surcharge) Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

***Remarks:** Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: (Eastern) Pacific Central Other Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	5/30/08	1630	SECURED STORAGE	5/30/08	1630
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX Date Shipped:

Airbill #:

Airbill #:

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp: 4

1) Chain of Custody Number: Client Determined

2) QC Codes: N - Normal Sample, TB - Trip Blank, FD - Field Duplicate, EB - Equipment Blank, MS- Matrix Spike Sample, MSD - Matrix Spike Duplicate Sample, G- Grab, C- Composite

3) Field Filtered - For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered

4) Matrix Codes: DW - Drinking Water, GW - Groundwater, SW - Surface Water, WW - Waste Water, W - Water, ML - Misc Liquid, SO - Soil, SD - Sediment, SL - Sludge, SS - Solid Waste, O - Oil, F - Filter, P - Wipe, U - Urine, F - Feces, N - Nasal

5) Sample Analysis Requested - Analytical method requested (i.e. 8260B, 6010B/7470B) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470B - 1)

6) Preservative Type: HA - Hydrochloric Acid, NI - Nitric Acid, SH - Sodium Hydroxide, SA - Sulfuric Acid, AA - Ascorbic Acid, HX - Hexane, ST - Sodium Thiosulfate, If no preservative is added - leave field blank

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201842

Page 1 of 1
Project #: Energy Ground Water Monitoring Prog
GEL Quote #:
COC Number (1):
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy — Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: Miguel Brito — Send Results To: Patrick Donahue

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* Ex: composite = indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	-- Preservative Type (6)
MW-107-(007)	05/30/08	1525	N	N	GW	Y	Y	1	1	1	1	1 Gal Poly

Comments
Note: extra sample is required for sample specif QC

TAT Requested: Normal: ✓ Rush: Specify: (Subject to Surcharge) — Fax Results: Yes / (No) — Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

***Remarks:** Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: (Eastern) Pacific Central Other Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 [signature]	5/30/08	1639	SECURED STORAGE	5/30/08	1630
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy
Method of Shipment: FEDEX — Date Shipped:
Airbill #:
Airbill #:

1) Chain of Custody Number – Client Determined
2) QC Codes: N – Normal Sample, TB – Trip Blank, FD- Field Duplicate, EB – Equipment Blank, MS- Matrix Spike Sample, MSD- Matrix Spike Duplicate Sample, G= Grab, C= Composite
3) Field Filtered - For liquid matrices, indicate with a Y – for yes the sample was field filtered or N – for sample was not field filtered
4) Matrix Codes: DW- Drinking Water, GW-Groundwater, SW- Surface Water, WW- Waste Water, W-Water, ML- Misc Liquid, SO- Soil, SD- Sediment, SL- Sludge, SS-Solid Waste, O-Oil, F- Filter, P-Wipe, U-Urine, F-Fecal, N- Nasal
5) Sample Analysis Requested - Analytical method requested (i.e. 8260B, 6010B/7470A and number of containers provided for each (i.e. 8260B- 3, 6010B/7470A - 1).
6) Preservative Type: HA - Hydrochloric Acid, NI - Nitric Acid, SH- Sodium Hydroxide, SA - Sulfuric Acid, AA- Ascorbic Acid, HX- Hexane, ST – Sodium Thiosulfate, If no preservative is added - leave field blank

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: C

IPEC00201843

Page: 1 of 1
Project # Entergy Ground Water Monitoring Prog
GEL Quote #
COC Number (1)
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: Miguel Britos Send Results To: Patrick Donahue

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)							<-- Preservative Type (6)
MW-30-69-(019)	06/06/08	1101	N	N	GW	Y	Y	1	1	1	1							1 Gal Poly
MW-30-84-(010)	06/06/08	1210	N	N	GW	Y	Y	1	1	1	1							1 Gal Poly

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: Specify: (Subject to Surcharge) Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
(Eastern) Pacific
Central Other
Mountain

Chain of Custody Signatures

Relinquished by (signed)	Date	Time	Received by (signed)	Date	Time
1 Miguel Britos	6/6/08	1630	SECURED STORAGE	6/6/08	1630
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy
Method of Shipment: FEDEX Date Shipped:
Airbill #:
Airbill #:

1) Chain of Custody Number - Client Determined
2) QC Code - N - Normal Sample, TB - Trip Blank, FD - Field Duplicate, EB - Equipment Blank, MS- Matrix Spike Sample, MSD- Matrix Spike Duplicate Sample, G- Grab, C- Composite
3) Field Filtered - For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered.
4) Matrix Codes: DW Drinking Water, GW Groundwater, SW Surface Water, WW Waste Water, W- Water, ML-Misc Liquid, SO-Soil, SD- Sediment, SL-Sludge, SS-Solid Waste, O-Oil, F-Filter, P-Wipe, U- Urine, F-Fecal, N- Nasal
5) Sample Analysis Requested - Analytical method requested (i.e. 8260B, 6010B/7470A and number of containers provided for each (i.e. 8260B 3, 6010B/7470A - 1)
6) Preservative Type: HA- Hydrochloric Acid, NI - Nitric Acid, SH- Sodium Hydroxide, SA- Sulfuric Acid, AA- Ascorbic Acid, HX- Hexane, ST - Sodium Thiosulfate, If no preservative is added - leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201844

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [1]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy — Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: Miguel Britos — Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr-90)	<-- Preservative Type (6)	Comments
MW-31-49-(009)	06/06/08	1505	N	N	GW	Y	Y	1	1	1	1	1 Gal Poly	Note: extra sample is required for sample specific QC
MW-31-63-(009)	06/06/08	1616	N	N	GW	Y	Y	1	1	1	1	1 Gal Poly	
MW-31-85-(009)	06/06/08	1526	N	N	GW	Y	Y	1	1	1	1	1 Gal Poly	

TAT Requested: Normal ✓ Rush: Specify: (Subject to Surcharge) — Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: (Eastern) Central Mountain Pacific Other

Chain of Custody Signatures

	Relinquished By (signed)	Date	Time	Received By (signed)	Date	Time
1	[signature]	6/6/08	1630	SECURED IN STORAGE	6/6/08	1630
2						
3						

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy
Method of Shipment: FEDEX — Date Shipped:
Airbill #:
Airbill #:

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: C

1) Chain of Custody Number - Client Determined
2) QC Codes: N= Normal Sample, TB= Trip Blank, FD= Field Duplicate, EB= Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C= Composite
3) Field Filtered - For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered
4) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW= Waste Water, W= Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
5) Sample Analysis Requested - Analytical method requested (i.e. *8260B, 6010B/7470A*) and number of containers provided for each (i.e. *8260B-3, 6010B/7470A-1*)
6) Preservative Type: HA=Hydrochloric Acid, NI= Nitric Acid, SH=Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, IX= Hexane, ST= Sodium Thiosulfate. If no preservative is added = leave field blank

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

IPEC00201845

Page: 1 of 1

Project #: Entergy Ground Water Monitoring Prog

GEL Quote #:

COC Number: (1)

PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: Miguel Britos Send Results To: Patrick Donahue

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr-90)							<-- Preservative Type (6)
MW-32-59-(004)	06/09/08	1210	N	N	GW	Y	Y	1	1	1	1							1 Gal Poly
MW-32-85-(007)	06/09/08	1225	N	N	GW	Y	Y	1	1	1	1							1 Gal Poly

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal ✓ Rush: Specify: (Subject to Surcharge) Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Sample Collection Time Zone: (Eastern) Pacific Central Other Mountain

Chain of Custody Signatures

	Relinquished by (signed)	Date	Time	Received by (signed)	Date	Time
1	Miguel Britos	6/9/08	1300	SECURED STORAGE	6/9/08	1300
2				2		
3	2			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX Date Shipped:

Airbill #

Airbill #

1) Chain of Custody Number - Client Determined

2) QC Codes: N - Normal Sample, TB - Trip Blank, FD - Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C = Composite

3) Field Filtered - For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered.

4) Matrix Codes: DW - Drinking Water, GW - Groundwater, SW - Surface Water, WW= Waste Water, W=Water, ML = Misc Liquid, SO=Soil, SD=Sediment, SL= Sludge, SS=Solid Waste, O-Oil, F=Filter, P=Wipe, U=Urine, F-Fecal, N=Nasal

5) Sample Analysis Requested - Analytical method requested (i.e. *8260B, 6010B/7470A*) and number of containers provided for each (i.e. *8260B- 3, 6010B/7470A - 1*)

6) Preservative Type: HA - Hydrochloric Acid, NI = Nitric Acid, SH- Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added - leave Field Blank

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

For Lab Receiving Use Only

Custody Seal Intact? *YES* *NO*

Cooler Temp: ___ *C*

IPEC00201846

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [10]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: Miguel Britos Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	Nickel 63 (Ni63)	<-- Preservative Type (6)	Comments Note: extra sample is required for sample specific QC
MW-54-37-(006)	07/22/08	1700	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly
MW-54-58-(006)	07/22/08	1705	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly
MW-54-123-(006)	07/22/08	1530	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly
MW-54-144-(006)	07/22/08	1535	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly
MW-54-173-(006)	07/22/08	1551	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly
MW-54-190-(006)	07/22/08	1550	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly

TAT Requested: Normal: ✓ Rush: ____ Specify: ____ (Subject to Surcharge) Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

***Remarks:** Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
(Eastern) Pacific
Central Other ____
Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
Miguel A Britos	07/22/08	1850	SECURED IN STORAGE	07/22/08	1850
			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX Date Shipped:

Airbill #:

Airbill #:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N= Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C= Composite

3.) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered.

4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470B) and number of containers provided for each (i.e. 8260B- 3, 6010B/7470B - 1)

6.) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp ____ C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201847

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [1]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center Fax # (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: Miguel Britos Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	<-- Preservative Type (6)	Comments
U3-T1-(021)	07/23/08	1116	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
U3-T2-(026)	07/23/08	1340	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly

Comments: Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: Specify: (Subject to Surcharge) Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: (Eastern) Central Mountain Pacific Other

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	Miguel A Britos	7/23/08	1440	SECURED IN STORAGE	7/23/08	1440
2						
3						

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX Date Shipped:

Airbill #:

Airbill #:

1) Chain of Custody Number - Client Determined

2) QC Codes: N= Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C= Composite

3) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered

4) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc. Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal

5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A and number of containers provided for each (i.e. 8260B, 3, 6010B/7470A - 1)

6) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp: C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201848

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number (1):
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: AA/MB Send Results To: Patrick Donahue

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	<== Preservative Type (6)	Comments
MW-37-22-(011)	07/24/08	1120	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-37-32-(011)	07/24/08	1228	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-37-40-(011)	07/24/08	1312	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-37-57-(011)	07/24/08	1320	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly

Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: Specify: (Subject to Surcharge) Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
(Eastern) Pacific
Central Other
Mountain

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	[signature]	7/24/08	1610	[signature]	7/24/08	1610
2						
3						

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX Date Shipped:

Airbill #:

Airbill #:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N= Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C= Composite

3.) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered

4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. *8260B, 6010B/7470B*) and number of containers provided for each (i.e. *8260B- 3, 6010B/7470A - 1*)

6.) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp: C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201849

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [1]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy — Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: MBIM — Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)							<-- Preservative Type (6)
MW-36-24-(011)	07/24/08	357	N	N	GW	Y	Y	1	1	1	1							1 Gal Poly
MW-36-52-(010)	07/24/08	1600	N	N	GW	Y	Y	1	1	1	1							1 Gal Poly

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: Specify: (Subject to Surcharge)

Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

***Remarks:** Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
(Eastern) Pacific
Central Other
Mountain

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	[signature]	7/24/08	1610	[signature]	7/24/08	1610
2						
3						

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX — Date Shipped:

Airbill #:

Airbill #:

1) Chain of Custody Number = Client Determined
2) QC Codes: N= Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C = Composite
3) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered.
4) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470/and number of containers provided for each (i.e. 8260B- 3, 6010B/7470A - 1)
6) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: °C

IPEC00201850

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [1]:
PO Number: 500 13510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy — Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: MB/AA — Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	<-- Preservative Type (6)	Comments
MW-46-(013)	07/24/08	1656	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: ____ Specify: ____ (Subject to Surcharge)

Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

***Remarks:** Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
(Eastern) Pacific
Central Other ____
Mountain

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	[signature]	7/24/08	1715	[signature]	7/24/08	1715
2						
3						

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX — Date Shipped

Airbill #:

Airbill #:

1) Chain of Custody Number = Client Determined
2) QC Codes: N= Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C = Composite
3) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered
4) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, B=Feces, N=Nasal
5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470B) and number of containers provided for each (i.e. 8260B: 3, 6010B/7470B: 1)
6) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate. If no preservative is added - leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: ____ C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201851

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [1]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: [illegible] Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	<-- Preservative Type (6)
MW-44-102-(010)	07/25/08	1114	N	N	GW	Y	Y	1	1	1	1	1 Gal Poly
MW-44-67-(009)	07/25/08	1215	N	N	GW	Y	Y	1	1	1	1	1 Gal Poly
	[illegible]	[illegible]										

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: ____ Specify: ____ (Subject to Surcharge) Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Sample Collection Time Zone
(Eastern) Pacific
Central Other ____
Mountain

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	[signature]	7/25/08	1710	1 Secure Storage	7/25/08	1710
2				2		
3				3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy
Method of Shipment: FEDEX Date Shipped:
Airbill #:
Airbill #:

1) Chain of Custody Number – Client Determined
2) QC Codes: N= Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C = Composite
3) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered.
4) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Miss Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470B) and number of containers provided for each (i.e. 8260B-3, 6010B/7470A - 1)
6) Preservative Type: HA=Hydrochloric Acid, NI = Nitric Acid, SH=Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added - leave field blank

For Lab Receiving Use Only
Custody Seal Intact?
YES *NO*
Cooler Temp:
C

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

IPEC00201852

Page 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [1]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy — Phone #: (914) 736-8405
Project/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247
Address: 450 Broadway, Suite 3, Buchanan, NY 10511
Collected by: [signature] — Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	<-- Preservative Type (6)	Comments
MW-45-42-(013)	07/25/08	1648	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-45-61-(013)	07/25/08	1351	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly

Comments: Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: ____ Specify: ____ (Subject to Surcharge) | Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: (Eastern) Central Mountain Pacific Other ____

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	[signature]	7/25/08	1710	Secure storage	7/25/08	1710
2						
3						

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy
Method of Shipment: FEDEX — Date Shipped:
Airbill #:
Airbill #:

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: ____ C

1.) Chain of Custody Number: Client Determined
2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C = Composite
3.) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered.
4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Miscellaneous Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B- 3, 6010B/7470A - 1).
6.) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA = Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201853

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number (1):
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy — Phone #: (914) 736-8405
Project/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247
Address: 450 Broadway, Suite 3, Buchanan, NY 10511
Collected by: Miguel Britos / Angelo Altieri — Send Results To: Patrick Donahue

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	Nickel 63 (Ni63)	<-- Preservative Type (6)	Comments
MW-67-105-(005)	07/28/08	1425	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly
MW-67-173-(005)	07/28/08	1442	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly
MW-67-219-(005)	07/28/08	1100	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly
MW-67-276-(005)	07/28/08	1109	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly
MW-67-323-(005)	07/28/08	1125	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly
MW-67-340-(005)	07/28/08	1118	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly
MW-67-39-(005)	07/28/08	1407	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly

Comments: Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: ____ Specify: ____ (Subject to Surcharge)
Fax Results: Yes / (No)
Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Sample Collection Time Zone: (Eastern) Pacific Central Other ____ Mountain

Chain of Custody Signatures

Relinquished By: (Signed)	Date	Time	Received by: (signed)	Date	Time
1 [signature]	07/28/08	1600	SECURED STORAGE	07/28/08	1600
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy
Method of Shipment: FEDEX — Date Shipped:
Airbill #:
Airbill #:

1.) Chain of Custody Number: Client Determined
2.) QC Codes: N= Normal Sample, TB= Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C= Composite
3.) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered
4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470B) and number of containers provided for each (i.e. 8260B- 3, 6010B/7470B - 1)
6.) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: ____ C

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

IPEC00201854

Page: 1 of 1

Project # Entergy Ground Water Monitoring Prog

GEL Quote #:

QC Number [1]:

PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy — Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: AA / MB — Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	---	---	---	---	---	---	---	---	Preservative Type (6)	Comments
U3-4D-(017)	07/25/08	1540	N	N	GW	Y	Y	1	1	1	1									1 Gal Poly	Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush ____ Specify: ____ (Subject to Surcharge)

Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Sample Collection Time Zone: (Eastern) Pacific Central Other ____ Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
	7/25/08	1710	1 Storage	7/28/08	0710
			2		
			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX — Date Shipped:

Airbill #:

Airbill #:

Chain of Custody Number - Client Determined

QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered

Matrix Codes: DW Drinking Water, GW Groundwater, SW Surface Water, WW Waste Water, W Water, MI Misc Liquid, SO Soil, SD Sediment, SL Sludge, SS Solid Waste, O Oil, F Filter, P Wipe, Bd Urine, F Fecal, N Nasal

Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470B) and number of containers provided for each (i.e. 8260B- 3, 6010B/7470A - 1)

Preservative Type: HA - Hydrochloric Acid, NI - Nitric Acid, SH - Sodium Hydroxide, SA - Sulfuric Acid, AA - Ascorbic Acid, HX - Hexane, ST - Sodium Thiosulfate, If no preservative is added - leave field blank

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

For Lab Receiving Use Only

Custody Seal Intact: YES NO

Cooler Temp: /

IPEC00201855

Page 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number (1):
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy — Phone #: (914) 736-8405
Project/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247
Address: 450 Broadway, Suite 3. Buchanan, NY 10511
Collected by: AA/MS — Send Results To: Patrick Donahue

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr-90)	Nickel 63 (Ni63)	<-- Preservative Type (6)	Comments
MW-66-21-(005)	07/29/08	1148	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly
MW-66-36-(005)	07/29/08	1205	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly

Comments: Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush ____ Specify: ____ (Subject to Surcharge) — Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

***Remarks:** Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: (Eastern) Pacific Central Other ____ Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	7/29/08	1645	1 secure storage	7/29/08	1645
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy
Method of Shipment: FED5X — Date Shipped:
Airbill #:
Airbill #:

1.) Chain of Custody Number - Client Determined
2.) QC Codes: N - Normal Sample, TB = Trip Blank, FD - Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C = Composite
3.) Field Filtered - For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered
4.) Matrix Codes: DW-Drinking Water, GW-Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
5.) Sample Analysis Requested - Analytical method requested (i.e. 8260B, 6010B/7470A and number of containers provided for each (i.e. 8260B- 3, 6010B/7470A - 1).
6.) Preservative Type: HA - Hydrochloric Acid, NI - Nitric Acid, SH - Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: ____ C

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

IPEC00201856

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [1]:
PO Number 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy — Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: M. B. / A. A. — Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	<-- Preservative Type (6)	Comments
MW-63-112 (006)	07/29/08	1420	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-63-121-(006)	07/29/08	1430	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-63-163-(006)	07/29/08	1456	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-63-174-(006)	07/29/08	1440	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-63-18-(006)	7/30/08	1113	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-63-34-(006)	7/30/08	1112	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-63-50-(006)	7/30/08	1029	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-63-93-(007)	07/29/08	1417	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly

TAT Requested: Normal: ✓ Rush: ____ Specify: ____ (Subject to Surcharge) — Fax Results: Yes / (No) — Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: (Eastern) Pacific Central Other ____ Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	7/30/08	1530	1 Secure storage	7/30/08	1530
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX — Date Shipped:

Airbill #:

Airbill #:

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp: ____ C

1) Chain of Custody Number: Client Determined

2) QC Codes: N= Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C= Composite

3) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered

4) Matrix Codes: DW Drinking Water, GW Groundwater, SW Surface Water, WW Waste Water, W Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, B=Wipe, U=Urine, F=Fecal, N=Nasal

5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470B) and number of containers provided for each (i.e. *8260B- 3, 6010B/7470A - 1*)

6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

IPEC00201857

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number (1):
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy — Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: M. B. / A A — Send Results To: Patrick Donahue

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	<-- Preservative Type (6)	Comments
MW-60-135-(006)	07/30/08	1333	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-60-154-(006)	07/30/08	1335	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-60-176-(006)	07/30/08	1408	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-60-35-(006)	07/30/08	1610	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-60-53-(006)	07/30/08	1323	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-60-72-(006)	07/30/08	1325	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly

Note: extra sample is required for sample specifi QC

TAT Requested: Normal: ✓ Rush: ____ Specify: ____ (Subject to Surcharge) — Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: (Eastern) Central Mountain Pacific Other

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
[signature]	7/30/08	1700	SECURED STORAGE	7/30/08	1700
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX — Date Shipped:

Airbill #:

Airbill #:

1) Chain of Custody Number - Client Determined

2) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3) Field Filtered - For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered

4) Matrix Codes: DW = Drinking Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, ML = Misc Liquid, SO = Soil, SD = Sediment, SL = Sludge, SS = Solid Waste, O = Oil, F = Filter, P = Wipe, U = Urine, F = Fecal, N = Nasal

5) Sample Analysis Requested - Analytical method required (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B, 3, 6010B/7470A - 1)

6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp: ___ C

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

IPEC00201858

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [1]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10611

Collected by: A A IM.B. Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	Nickel 63 (Ni63)	<-- Preservative Type (6)	Comments
MW-49-26-(013)	07/30/08	1503	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly
MW-49-42-(013)	07/30/08	1506	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly
MW-49-65-(013)	07/30/08	1358	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly

Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: Specify: (Subject to Surcharge)

Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Sample Collection Time Zone
(Eastern) Pacific
Central Other
Mountain

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	C.P. Quinn	7/30/08	1530	Secure storage	7/30/08	1530
2						
3						

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX Date Shipped:

Airbill #:

Airbill #:

1) Chain of Custody Number = Client Determined

2) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered.

4) Matrix Codes: DW = Drinking Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, ML = Miscellaneous Liquid, SO = Soil, SD = Sediment, SL = Sludge, SS = Solid Waste, O = Oil, F = Filter, P = Wipe, U = Urine, F = Fecal, N = Nasal

5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470B) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank.

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp: C

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

IPEC00201859

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number (1):
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405
Project/Site Name: Indian Point Energy Center Fax #: (914) 734-6247
Address: 450 Broadway, Suite 3, Buchanan, NY 10511
Collected by: A A. IMB Send Results To: Patrick Donahue

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	Should this sample be considered: RCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (S-90)	<-- Preservative Type (6)	Comments
MW-32-59-(005)	07/31/08	1323	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-32-85-(008)	07/31/08	1435	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
~~MW-32-131-(007)~~			~~N~~	~~N~~	~~GW~~	~~Y~~	~~Y~~	~~1~~	~~1~~	~~1~~	~~1~~		~~1 Gal Poly~~
MW-32-149-(007)	07/31/08	1110	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-32-173-(004)	07/31/08	1050	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-32-190-(007)	07/31/08	1124	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly

TAT Requested: Normal: ✓ Rush: Specify: (Subject to Surcharge) Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: (Eastern) Pacific Central Other Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	8/1/08	1410	1 Secure Storage	8/1/08	1410
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy
Method of Shipment: FEDEX Date Shipped:
Airbill #:
Airbill #:

1) Chain of Custody Number - Client Determined
2) QC Codes: N= Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spice Duplicate Sample, G= Grab, C = Composite
3) Field Filtered - For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered.
4) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW= Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, B=Fecal, N=Nasal
5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470B) and number of containers provided for each (i.e. *8260B- 3, 6010B/7470A - 1*)
6) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201860

Page: 1 of 1
Project #: Energy Ground Water Monitoring Proc
GEL Quote #:
COC Number (1):
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: M.B. / A.A. Send Results To: Patrick Donahue

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	Nickel 63 (Ni63)	<-- Preservative Type (6)	Comments
MW-50-42-(014)	07/31/08	1543	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly
MW-50-66-(014)	07/31/08	1702	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly

Comments: Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: Specify: (Subject to Surcharge) Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: (Eastern) Central Mountain Pacific Other

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	7/31/08	1730	SECURED STORAGE	7/31/08	1730
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX Date Shipped:

Airbill #:

Airbill #:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered.

4.) Matrix Codes: DW-Drinking Water, GW-Groundwater, SW-Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B, 6010B/7470A** and number of containers provided for each (i.e. *8260B-3, 6010B/7470A - 1*).

6.) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only

Custody Seal Intact? *YES* *NO*

Cooler Temp: ____ *C*

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

IPEC00201861

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #
COC Number* (1):
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy — Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: Miguel Britos — Send Results To: Patrick Donahue

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	Nickel 63 (Ni63)	<-- Preservative Type (6)	Comments
MW-50-42-(014)	07/31/08	1543	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly
MW-50-66-(016)	07/31/08	1702	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly

Comments: Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: ____ Specify: ____ (Subject to Surcharge)

Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Sample Collection Time Zone: (Eastern) Central Mountain Pacific Other ____

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 [signature]	7/31/08	1730	1 SECURED STORAGE	7/31/08	1730
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX — Date Shipped:

Airbill #:

Airbill #:

1) Chain of Custody Number = Client Determined

2) QC Codes: N= Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C= Composite

3) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered

4) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Miss Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, B=Fecal, N=Nasal

5) Sample Analysis Requested: Analytical method requested (i.e. *8260B, 6010B/7470A*) and number of containers provided for each (i.e. *8260B: 3, 6010B/7470A: 1*)

6) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate. If no preservative is added - leave field blank

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp: ____ C

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

IPEC00201862

Page: 1 of 1
Project # Entergy Ground Water Monitoring Prog
GEL Quote #
COC Number [1]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405
Project/Site Name: Indian Point Energy Center Fax #: (914) 734-6247
Address: 450 Broadway, Suite 3, Buchanan, NY 10511
Collected by: ATH MB Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	Nickel 63 (Ni63)	<-- Preservative Type (6)
MW-55-24-(007)	08/01/08	1315	N	N	GW	Y	Y	1	1	1	1	1	1 Gal Poly
MW-55-35-(007)	08/01/08	1047	N	N	GW	Y	Y	1	1	1	1	1	1 Gal Poly
MW-55-54-(007)	08/01/08	1038	N	N	GW	Y	Y	1	1	1	1	1	1 Gal Poly

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: Specify: (Subject to Surcharge) Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
(Eastern) Pacific
Central Other
Mountain

Chain of Custody Signatures

Relinquished By (Signed) Date Time	Received by (signed) Date Time
1 Cyd Cean 8/1/08 1410	1 Secure Storage 8/1/08 1410
2	2
3	3

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy
Method of Shipment: FEDEX Date Shipped:
Airbill #:
Airbill #:

1) Chain of Custody Number = Client Determined
2) QC Codes: N= Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C=Composite
3) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered
4) Matrix Codes: DW Drinking Water, GW Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N= Nasal
5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470B) and number of containers provided for each (i.e. 8260B- 3, 6010B/7470B - 1).
6) Preservative Type: HA- Hydrochloric Acid, NI- Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? *YES* *NO*
Cooler Temp: ____ C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201863

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number (1):
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy — Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Bucharen, NY 10511

Collected by: AA / MB — Send Results To: Patrick Donahue

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr-90)	Nickel 63 (Ni63)							<-- Preservative Type (6)
MW-53-82-(008)	08/04/08	1015	N	N	GW	Y	Y	1	1	1	1	1							1 Gal Poly
MW-53-120-(009)	08/04/08	1235	N	N	GW	Y	Y	1	1	1	1	1							1 Gal Poly

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: ____ Specify: ____ (Subject to Surcharge) — Fax Results: Yes / (No) — Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

***Remarks:** Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
(Eastern) Pacific
Central Other ____
Mountain

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	[signature]	8/4/08	1550	[signature] Stridge	8/4/08	1550
2						
3						

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy
Method of Shipment: FEDEX — Date Shipped:
Airbill #:
Airbill #:

1.) Chain of Custody Number = Client Determined
2.) QC Codes: N= Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C= Composite
3.) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered
4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW= Waste Water, W=Water, MI= Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, T=Fecal, N=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A and number of containers provided for each (i.e. 8260B 3, 6010B/7470A - 1)
6.) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp. °C

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

IPEC00201864

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [1]:
PO Number: 5O013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: MB/AA Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	Nickel 63 (Ni63)	<-- Preservative Type (6)	Comments
MW-42-49-(011)	08/04/08	1424	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly
MW-42-78-(009)	08/04/08	1207	N	N	GW	Y	Y	1	1	1	1	1		1 Gal Poly

Comments: Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: Specify: (Subject to Surcharge) Fax Results: Yes / No

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: (Eastern) Central Mountain Pacific Other

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	8/4/08	1550	1 SCNR STDuff	8/4/08	1550
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX Date Shipped:

Airbill #:

Airbill #:

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp. C

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N=Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C= Composite

3.) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered

4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B- 3, 6010B/7470A - 1).

6.) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201865

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number (1):
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center Fax #: (914) 734-5247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: AA / MB Send Results To: Patrick Donahue

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)							<-- Preservative Type (6)	Comments
MW-30-69-(020)	05/05/08	1122	N	N	GW	Y	Y	1	1	1	1								1 Gal Poly	Note: extra sample is required for sample specific QC
MW-30-84-(011)	05/05/08	1440	N	N	GW	Y	Y	1	1	1	1								1 Gal Poly	

TAT Requested: Normal: ✓ Rush: Specify: (Subject to Surcharge) Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

***Remarks:** Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
(Eastern) Pacific
Central Other
Mountain

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	[signature]	5/5/08	1530	[signature]	5/5/08	1530
2						
3						

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX Date Shipped:

Airbill #:

Airbill #:

1) Chain of Custody Number = Client Determined

2) QC Codes: N = Normal Sample, TB = Trip Blank, FB = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered - or N - for sample was not field filtered

4) Matrix Codes: DW = Drinking Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, ML = Misc. Liquid, SO = Soil, SD = Sediment, SL = Sludge, SS = Soil / Waste, O = Oil, F = Filter, P = Wipe, T = Tissue, F = Fecal, N = Nasal

5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B: 3, 6010B/7470A: 1)

6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added, leave field blank

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp: C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201866

ge: 1 of 1
oject #: Entergy Ground Water Monitoring Prog
L Quote #:
OC Number [3]:
) Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

ient Name: Entergy — Phone #: (914) 736-8405

oject/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247

ddress: 450 Broadway, Suite 3, Buchanan, NY 10511

ollected by: M.B / A.A — Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [1]	Field Filtered [2]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr-90)	<-- Preservative Type (6)	Comments
MW-62-18-(006)	08/06/08	1225	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-62-37-(006)	08/06/08	1200	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-62-53-(005)	08/06/08	1235	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-62-71-(006)	08/06/08	1142	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-62-92-(006)	08/06/08	1149	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-62-138-(006)	08/06/08	1141	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-62-182-(006)	08/06/08	1354	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly

TAT Requested: Normal: ✓ Rush: ____ Specify: ____ (Subject to Surcharge) — Fax Results: Yes / (No) — Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Sample Collection Time Zone: (Eastern) Central Mountain Pacific Other

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
[signature]	8/6/08	1500	1 SECURED STORAGE	8/6/08	1500
			2		
			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX — Date Shipped:

Airbill #:

Airbill #:

Chain of Custody Number: Client Determined

QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered

Matrix Codes: DW Drinking Water, GW Groundwater, SW Surface Water, WW Waste Water, W Water, ML Misc Liquid, SO Soil, SD Sediment, SL Sludge, SS Solid Waste, O Oil, F Filter, P Wipe, U Urine, F Fecal, N Nasal

Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B: 3, 6010B/7470A: 1)

Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp. °C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201867

Life Science Laboratories, Inc.
Brittonfield Lab

5000 Brittonfield Parkway, Suite 200
East Syracuse, New York 13057
(315) 437-0200

Chain of Custody

Client: Entergy / INDIAN POINT ENERGY CENTER
Project: VOA - GW Sampling
Sampled by: Miguel Britos / Angela Altieri
Client Contact: Patrick Donahoe Phone # 914-736-8405

Sample Description

Sample Location	Date Collected	Time Collected	Sample Matrix	Comp. or Grab	No. of Containers	Analysis/Method: 8260 VOCs	Comments
MW-101	8/7/08	1105	GW	G	3	X	

Relinquished by: [signature]	Date: 8/7/08 Time: 1137	Received by: Patrick Donahue	Date: 8/7/08 Time: 1137
Relinquished by: Patrick Donahue	Date: 8/7/08 Time: 1140	Received by: SECURE STORAGE	Date: 8/7/08 Time: 1140
Relinquished by:	Date: Time:	Received by Lab:	Date: Time:
Shipment Method:		Airbill Number:	

Turnaround Time Required:
Routine
Rush (Specify)

Comments:

Cooler Temperature:

Original - Laboratory
Copy - Client

IPEC00201868

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
FL Quote #:
COC Number [1]:
ID Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy — Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: AA / MB — Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: DOE Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	<-- Preservative Type (6)	Comments
MW-31-49-(010)	08/07/08	1243	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-31-63-(010)	08/07/08	1122	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-31-85-(010)	08/07/08	1113	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly

Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: Specify: (Subject to Surcharge)

Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Sample Collection Time Zone: (Eastern) Central Mountain Pacific Other

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
	8/7/08	1515	1 Secure Storage	8/7/08	1515
			2		
			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX — Date Shipped:

Airbill #:

Airbill #:

Chain of Custody Number = Client Determined

QC Codes: N - Normal Sample, TB - Trip Blank, FD - Field Duplicate, EB - Equipment Blank, MS- Matrix Spike Sample, MSD- Matrix Spike Duplicate Sample, G- Grab, C - Composite

Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered.

Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O-Oil, F- Filter, P-Wipe, Bi=Brine, F- Feral, N Nasal

Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470B) and number of containers provided for each (i.e. 8260B- 3, 6010B/7470A - 1)

Preservative Type: HA- Hydrochloric Acid, NI - Nitric Acid, SH- Sodium Hydroxide, SA - Sulfuric Acid, AA- Ascorbic Acid, HX - Hexane, ST - Sodium Thiosulfate, If no preservative is added - leave field blank

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp: °C

IPEC00201869

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [1]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center Fax #: (914) 734-6247

Address: 450 Broadway Suite 3, Buchanan, NY 10511

Collected by: Miguel Beitos Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	<-- Preservative Type (6)	Comments
MW-51-40-(008)	08/08/08	1440	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-51-79-(008)	08/08/08	1255	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-51-79-(008)-B	08/08/08	1257	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-51-79-(008)-D	08/08/08	1330	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-51-79-(008)-S	08/08/08	1312	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-51-104-(006)	08/08/08	1050	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-51-135-(006)	08/08/08	1150	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-51-163-(006)	08/08/08	1116	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly
MW-51-189-(006)	08/08/08	1117	N	N	GW	Y	Y	1	1	1	1		1 Gal Poly

TAT Requested: Normal: ✓ Rush: Specify: (Subject to Surcharge)

Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
(Eastern) Pacific
Central Other
Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	8/11/08	1559	1 SECURED STORAGE	8/11/08	1559
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX Date Shipped:

Airbill #:

Airbill #:

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: C

1) Chain of Custody Number = Client Determined
2) QC Codes: N = Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C= Composite
3) Field Filtered: For liquid matrices, indicate with a Y = for yes the sample was field filtered or N = for sample was not field filtered
4) Matrix Codes: DW Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Miscl Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe U=Urine, F=Fecal, N=Nasal
5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B-3, 6010B/7470A - 1).
6) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201870

Page 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #
COC Number [1]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy — Phone #: (914) 736-8405
Project/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247
Address: 450 Broadway, Suite 3, Buchanan, NY 10511
Collected by: Miguel Brites — Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	<-- Preservative Type (6)
MW-40-27-(004)	08/11/08	1319	N	N	GW	Y	Y	1	1	1	1	1 Gal Poly
MW-40-46-(005)	08/11/08	1335	N	N	GW	Y	Y	1	1	1	1	1 Gal Poly
MW-40-81-(005)	08/11/08	0943	N	N	GW	Y	Y	1	1	1	1	1 Gal Poly
MW-40-100-(007)	08/11/08	1010	N	N	GW	Y	Y	1	1	1	1	1 Gal Poly
MW-40-127-(007)	08/11/08	1034	N	N	GW	Y	Y	1	1	1	1	1 Gal Poly
MW-40-162-(005)	08/11/08	1144	N	N	GW	Y	Y	1	1	1	1	1 Gal Poly

Comments
Note, extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: Specify: (Subject to Surcharge) — Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Sample Collection Time Zone: (Eastern) Pacific / Central / Other / Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
[signature]	8/11/08	1600	SECURED STORAGE	8/11/08	1600
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy
Method of Shipment: FEDEX — Date Shipped:
Airbill #:
Airbill #:

1) Chain of Custody Number - Client Determined
2) QC Codes: N - Normal Sample, TB - Trip Blank, FD- Field Duplicate, EB - Equipment Blank, MS- Matrix Spike Sample, MSD- Matrix Spike Duplicate Sample, G- Grab C= Composite
3) Field Filtered - For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered
4) Matrix Codes: DW-Drinking Water, GW-Groundwater, SW-Surface Water, WW-Waste Water, W-Water, ML-Misc Liquid, SO Soil, SD-Sediment, SL-Sludge, SS-Solid Waste, O-Oil, F-Filter, P-Wipe, U-Urine, F-Fecal, N- Nasal
5) Sample Analysis Requested - Analytical method requested (i.e. 8260B, 6010B/7470B) and number of containers provided for each (i.e. 8260B-3, 6010B/7470A-1)
6) Preservative Type: HA- Hydrochloric Acid, N- Nitric Acid, SH- Sodium Hydroxide, SA- Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: C

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

IPEC00201871

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [1]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: Miguel Britos Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr-90)	<-- Preservative Type (6)	Comments
MW-31-49-(011)	08/30/08	1155	N	N	GW	Y	Y	1	1	1	1		2 Liter Poly
MW-31-63-(011)	08/30/08	1234	N	N	GW	Y	Y	1	1	1	1		2 Liter Poly
MW-31-85-(011)	08/30/08	1208	N	N	GW	Y	Y	1	1	1	1		2 Liter Poly

Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: Specify: (Subject to Surcharge) Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

***Remarks:** Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: (Eastern) Central Mountain Pacific Other

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
[signature]	8/30/08	1320	SECURED STORAGE	8/30/08	1320
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX Date Shipped:

Airbill #:

Airbill #:

1.) Chain of Custody Number – Client Determined

2.) QC Codes: N= Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C= Composite

3.) Field Filtered: For liquid matrices, indicate with a Y – for yes the sample was field filtered or N – for sample was not field filtered.

4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Miscellaneous Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. *8260B, 6010B/7470B*) and number of containers provided for each (i.e. *8260B-3, 6010B/7470A-1*)

6.) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added – leave field blank

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp: C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201872

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [1]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: Miguel Britos Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID * For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: DOT/IATA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	<-- Preservative Type (6)	Comments
MW-32-59-(006)	09/02/08	1352	N	N	GW	Y	Y	1	1	1	1		2 Liter Poly
MW-32-85-(009)	09/02/08	1440	N	N	GW	Y	Y	1	1	1	1		2 Liter Poly
MW-32-173-(005)	09/02/08	1130	N	N	GW	Y	Y	1	1	1	1		2 Liter Poly
MW-32-190-(008)	09/02/08	1140	N	N	GW	Y	Y	1	1	1	1		2 Liter Poly

Comments: Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: ____ Specify: ____ (Subject to Surcharge) Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Sample Collection Time Zone: (Eastern) Pacific Central Other ____ Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 Miguel A Brito	9/2/08	1530	SECURED STORAGE	9/2/08	1530
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX Date Shipped:

Airbill #:

Airbill #:

1) Chain of Custody Number – Client Determined

2) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3) Field Filtered: For liquid matrices, indicate with a Y = for yes the sample was field filtered or N = for sample was not field filtered

4) Matrix Codes: DW = Drink ng Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, ML = Misc Liquid, SO = Soil, SD = Sediment, SL = Sludge, SS = Solid Waste, O = Oil, F = Filter, P = Wipe, C = Core, F = Fecal, N = Nasal

5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470B and number of containers provided for each (i.e. 8260B, 3, 6010B/7470A - 1)

6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave Field Blank

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp. ____ C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201873

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [1]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: Miguel Britos Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (*For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	<-- Preservative Type (6)	Comments
MW-30-69-(021)	09/03/08	1129	N	N	GW	Y	Y	1	1	1	1		2 Liter Poly
MW-30-84-(012)	09/03/08	1159	N	N	GW	Y	Y	1	1	1	1		2 Liter Poly

Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: Specify: (Subject to Surcharge) Fax Results: Yes / No Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: (Eastern) Central Mountain Pacific Other

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	9/3/08	1530	SECURED STORAGE	9/3/08	1530
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX Date Shipped:

Airbill #:

Airbill #:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N= Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C= Composite

3.) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered.

4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Miss Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Fiber, P=Wipe, U=Urine, F=Fecal, N=Nasa

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A and number of containers provided for each (i.e. 8260B- 3, 6010B/7470A - 1)

6.) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp: C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201874

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [1]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP*

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy — Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: Miguel Britos — Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (*For composites indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)								<-- Preservative Type (6)	Comments
MW-111-(027)	09/04/08	1400	N	N	GW	Y	Y	1	1	1	1									2 Liter Poly

Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: ____ Specify: ____ (Subject to Surcharge)

Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

***Remarks:** Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: (Eastern) Pacific Central Other Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 Miguel Britos	9/4/08	1530	SECURED STORAGE	9/4/08	1530
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDLX — Date Shipped:

Airbill #:

Airbill #:

1) Chain of Custody Number = Client Determined

2) QC Codes: N= Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C = Composite

3) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered

4) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Feed, N=Nasal

5) Sample Analysis Requested: Analytical method requested (i.e. *8260B, 6010B/7470A*) and number of containers provided for each (i.e. *8260B- 3, 6010B/7470A - 1*)

6) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp: C

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

IPEC00201875

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [1]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: Miguel Britos Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	<-- Preservative Type (6)	Comments
MW-33-(023)	09/04/08	1441	N	N	GW	Y	Y	1	1	1	1		2 Liter Poly

Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: ____ Specify: ____ (Subject to Surcharge)

Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

***Remarks:** Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
(Eastern) Pacific
Central Other
Mountain

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	[signature]	9/4/08	1530	SECURED STORAGE	9/4/08	1530
2						
3						

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy

Method of Shipment: FEDEX Date Shipped:

Airbill #:

Airbill #:

1) Chain of Custody Number = Client Determined

2) QC Codes: N= Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C= Composite

3) Field Filtered - For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered.

4) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal

5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470B) and number of containers provided for each (i.e. 8260B: 3, 6010B/7470A: 1).

6) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp. °C

IPEC00201876

Page 1 of 1
Project #: Entergy Ground Water Monitoring Prog
GEL Quote #:
COC Number [1]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy — Phone #: (914) 736-8405
Project/Site Name: Indian Point Energy Center — Fax #: (914) 734-6247
Address: 450 Broadway, Suite 3, Buchanan, NY 10511
Collected by: Miguel Britos — Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr-90)	Nickel 63 (Ni63)							<-- Preservative Type (6)	Comments
MW-53-120-(010)	09/05/08	1055	N	N	GW	Y	Y	1	1	1	1	1							2 Liter Poly	Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush ____ Specify: ____ (Subject to Surcharge)
Fax Results: Yes / (No)
Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

***Remarks:** Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: (Eastern) Central Mountain Pacific Other ____

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 Miguel A Brito	9/5/08	1400	1 SECURED STORAGE	9/5/08	1400
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy
Method of Shipment: FEDEX — Date Shipped:
Airbill #:
Airbill 6:

1) Chain of Custody Number – Client Determined
2) QC Codes: N= Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C = Composite
3) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered
4) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML= Misc Liquid, SO=Soil, SD= Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=FAir, P=Wipe, U=Urine, F= Fecal, N=Nasal
5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 3, 6010B/7470A - 1).
6) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic Acid, HX= Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal intact? YES NO
Cooler Temp: ____ C

WHITE = LABORATORY **YELLOW = FILE** **PINK = CLIENT**

IPEC00201877

Page: 1 of 1
Project #: Entergy Ground Water Monitoring Proc
GEL Quote #:
COC Number [1]:
PO Number: 50013510

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Entergy Phone #: (914) 736-8405

Project/Site Name: Indian Point Energy Center Fax #: (914) 734-6247

Address: 450 Broadway, Suite 3, Buchanan, NY 10511

Collected by: Miguel Britos Send Results To: Patrick Donahue

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	Tritium (H3)	Gamma Spec (GS)	Strontium 90 (Sr90)	Nickel 63 (Ni63)							<-- Preservative Type (6)
MW-42-49-(012)	09/05/08	1252	N	N	GW	Y	Y	1	1	1	1	1							2 Liter Poly

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal: ✓ Rush: ____ Specify: ____ (Subject to Surcharge) Fax Results: Yes / (No)

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

***Remarks:** Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
(Eastern) Pacific
Central Other ____
Mountain

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	Miguel Britos	9/5/08	1400	SECURED STORAGE	9/5/08	1400
2						
3						

Sample Shipping and Delivery Details

GEL PM: Cheryl Duffy
Method of Shipment: FEDEX Date Shipped:
Airbill #:
Airbill #:

1.) Chain of Custody Number = Client Determined
2.) QC Codes: N= Normal Sample, TB = Trip Blank, FD= Field Duplicate, EB = Equipment Blank, MS= Matrix Spike Sample, MSD= Matrix Spike Duplicate Sample, G= Grab, C= Composite
3.) Field Filtered - For liquid matrices, indicate with a Y - for yes the sample was field filtered or N - for sample was not field filtered
4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O/Oil, P=Paint, P=Wipe, U=Urine, F=Fecal, N=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A and number of containers provided for each (i.e. 8260B- 3, 6010B/7470A - 1)
6.) Preservative Type: HA= Hydrochloric Acid, NI = Nitric Acid, SH= Sodium Hydroxide, SA= Sulfuric Acid, AA= Ascorbic acid, HX= Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: ___ C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

IPEC00201878

APPENDIX D: 3RD QUARTER 2008 SAMPLING DATA SHEETS

WELL ID: MW30 69

SAMPLE ID: 070

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 80's, Sunny

PROJECT NO: 01.0017869.91
DATE: 8/5/08
SAMPLER(S): MR/AM

SAMPLING INTERVAL (depth in ft below top of casing)

67.3 to 71.3

SAMPLING PORT

69

TOTAL VOLUME PURGED: 1.5 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1016	Pump On							5/5	40
1019	0.1	7.69	0.963	—	8.05	29.71	-151.1	5/6	45
1024	0.3	8.07	0.950	—	8.21	29.62	-63.4		
1029	0.45	8.05	0.945	—	8.42	29.25	-30.0		
1034	0.75	8.06	0.928	—	8.65	28.97	-14.6		
1039	1.0	8.05	0.927	—	8.61	28.75	-7.5		
1045	1.2	8.05	0.945	—	8.45	28.65	-4.4	5/6	40
1050	1.4	8.05	0.946	—	8.40	28.52	-0.3		
1051	Start Sampling								
1122	End Sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	2
turbidity meter	

NOTES AND OBSERVATIONS:

WELL ID: MW 30 - 84

SAMPLE ID: 01

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: SUNNY, HOT

PROJECT NO: 01.0017869.01
DATE: 8/5/08
SAMPLER(S): MB/AA

SAMPLING INTERVAL (depth in ft below top of casing)

77.3 to 85.4

SAMPLING PORT

84

TOTAL VOLUME PURGED: 1.3 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1016	Purge							5/5	40
1023	0.05	6.87	1.633	—	2.32	30.33	101.0	5/6	45
1028	0.20	7.03	1.638	—	1.03	30.37	67.7		
1033	0.30	7.06	1.638	—	1.08	30.38	37.1		
1038	0.40	7.07	1.638	—	1.05	30.31	10.0		
1044	0.50	7.48	1.594	—	4.33	29.45	-3.1	5/6	40
1049	0.60	8.09	1.576	—	5.51	29.62	32.8		
1055	0.80	8.22	1.600	—	5.95	29.54	29.1		
1100	1.0	8.24	1.593	—	6.45	29.26	26.3		
1105	1.1	8.27	1.590	—	6.69	29.18	29.2		
1110	1.2	8.29	1.589	—	6.88	29.09	25.0		
1112	Start Sampling							5/8	52
1145	Pump OFF - 40 water coming out this point								
1236	PUMP ON								
1440	SAMPLE COMPLETED: 1 gal. IPEC								
1441	PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
turbidity meter	

NOTES AND OBSERVATIONS:

WELL ID: MW 31-49

SAMPLE ID: 010

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 50's, Sun

PROJECT NO: 01.0017869.91
DATE: 8/7/08
SAMPLER(S): AF/MB

SAMPLING INTERVAL (depth in ft below top of casing)

34.8 to 49.3

SAMPLING PORT

49

TOTAL VOLUME PURGED: 2.2 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1124	0	Pump on						8/4	28
1128	0.1	7.27	1.625	5.53	4.42	20.56	0.8	8/4	25
1133	0.3	7.26	1.374	4.48	4.23	19.87	22.3		
1138	0.55	7.27	1.257	1.13	4.78	19.88	38.1		
1145	1.0	7.26	1.184	1.57	5.11	20.10	45.6		
1150	1.20	7.30	1.175	1.54	5.07	20.33	48.1	8/4	23
1155	1.30	7.29	1.174	1.61	5.13	20.47	49.7		
1200	1.40	7.27	1.170	0.79	5.19	20.34	53.3		
1205	1.55	7.25	1.151	2.23	5.28	20.53	56.3		
1210	1.75	7.26	1.138	0.24	5.26	20.37	55.9		
1215	1.90	7.24	1.131	0.22	5.28	20.38	58.4		
1217	Start Sampling								
1243	end Sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
turbidity meter	20070254

NOTES AND OBSERVATIONS:

WELL ID: MW 31-63

SAMPLE ID: 010

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 80's Sun

PROJECT NO: 01.0017869.91
DATE: 8/7/08
SAMPLER(S): AA/MB

SAMPLING INTERVAL (depth in ft below top of casing)

55.3 to 63.8

SAMPLING PORT

63

TOTAL VOLUME PURGED: 2.35 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
905	0	Pump on						8/4	32
910	0.05	7.20	1.359	4.61	1.36	20.36	-130.9	8/4	38
915	0.25	7.30	1.153	1.48	2.00	20.37	-96.7		
920	0.35	7.37	1.042	1.16	2.79	20.39	-64.5		
925	0.45	7.41	0.976	0.98	2.93	20.36	-39.6		
930	0.60	7.42	0.953	1.58	2.93	20.21	-15.9		
935	0.80	7.43	0.938	0.72	3.01	20.18	-4.3		
940	0.95	7.42	0.954	0.58	2.89	20.11	3.3		
945	1.10	7.42	0.989	0.43	2.82	19.97	8.1		
951	1.30	7.41	1.022	0	2.84	20.02	11.8		
952	Pump off								
1019	Pump on								
1020	1.35	7.49	1.054	1.21	3.95	20.80	18.9		
1025	1.55	7.43	1.084	0.27	2.88	20.17	12.7		
1030	1.65	7.41	1.085	0.08	2.79	20.25	11.7		
1035	1.80	7.42	1.086	0	2.74	20.17	12.0		
1040	2.0	7.42	1.087	0	2.69	20.25	12.7		
1045	2.15	7.43	1.090	0	2.69	20.40	13.1		
1047	Stop Sampling								
1122	end Sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
turbidity meter	2007012S4

NOTES AND OBSERVATIONS:

WELL ID: MW 31 - 85

SAMPLE ID: DUP

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 80's, sun

PROJECT NO: 01.0017869.91
DATE: 8/7/08
SAMPLER(S): AA/MB

SAMPLING INTERVAL (depth in ft below top of casing)

69.8 to 85.4

SAMPLING PORT

85

TOTAL VOLUME PURGED: 3.75 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
905	0	Pump on						8/4	32
911	0.1	7.08	1.647	2.02	1.55	20.01	-137.7	8/4	38
916	0.35	7.16	1.505	1.95	3.30	19.57	-113.0		
921	0.60	7.17	1.454	1.06	3.68	19.47	-81.2		
926	0.85	7.17	1.436	1.98	3.70	19.42	-68.2		
931	1.15	7.17	1.430	1.89	3.80	19.32	-57.1		
936	1.35	7.18	1.423	0.97	3.95	19.26	-47.7		
941	1.60	7.17	1.418	0.41	3.78	19.27	-37.9		
946	1.80	7.17	1.413	0.45	3.80	19.17	-29.0		
952	2.10	7.17	1.410	0	3.90	19.22	-20.9		
952	Pump off								
1019	Pump on								
1021	2.20	7.26	1.412	0.54	4.33	20.27	40.0		
1026	2.40	7.23	1.406	0.40	3.89	19.60	25.8		
1031	2.65	7.21	1.404	0.12	3.88	19.40	22.2		
1036	2.95	7.20	1.403	0.02	3.87	19.31	24.6		
1041	3.20	7.20	1.402	0	3.81	19.37	28.6		
1046	3.45	7.22	1.400	0	3.52	19.43	31.7		
1051	3.65	7.20	1.399	0	3.89	19.49	34.3		
1052	Start sampling								
1113	end sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
turbidity meter	20070125Y

NOTES AND OBSERVATIONS:

WELL ID: MW 32 59

SAMPLE ID: 304

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 90's, Sun

PROJECT NO: 01.0017869.91
DATE: 7/31/08
SAMPLER(S): AA/MB

SAMPLING INTERVAL (depth in ft below top of casing)
28.3 to 61.3

SAMPLING PORT
59 6

TOTAL VOLUME PURGED: 2.2 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1138	0	Pump on						7/4	40
1144	0.3	pump off							
1152		Pump on						7/4	28
1155	0.35	7.55	0.273	4.60	5.32	22.46	-77.4	7/4	22
1200	0.50	7.60	0.267	3.42	3.89	22.89	-87.8	7/4	24
1205	0.65	7.70	0.266	2.36	2.90	23.40	-101.5		
1210	0.80	7.75	0.266	2.08	2.11	23.37	-100.8		
1217	1.0	7.80	0.268	0.99	1.38	23.60	-91.4		
1222	1.15	7.84	0.273	1.40	1.01	23.20	-110.1		
1228	1.3	7.86	0.274	0.95	0.78	23.10	-105.9		
1233	1.45	7.90	0.275	0.98	0.65	22.87	-113.2		
1239	1.60	7.90	0.278	~~23~~ 0.90	0.53	22.97	-95.4		
1245	1.85	7.89	0.284	0.97	0.50	22.85	-88.3		
1250	2.0	7.90	0.290	1.03	0.48	22.81	-85.6		
1251	Start Sampling								
1323	end Sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
turbidity meter	20070443993

NOTES AND OBSERVATIONS:
Tracer test sample collected

WELL ID: MW 32 85

SAMPLE ID: 007

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 90's, Sun

PROJECT NO: 01.0017869.91
DATE: 7/31/08
SAMPLER(S): ADAMS

SAMPLING INTERVAL (depth in ft below top of casing)
79.3 to 92.8

SAMPLING PORT
85 5

TOTAL VOLUME PURGED: 2.2 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1134	0	Pumping						8/4	32
1150	0.4	7.14	1.184		12.51	20.55	-110.5	7/4	40
1151		Pump off							
1257	Pumping							7/4	24
1306	Pump off								
1324	Pumping							7/8	48
1328	0.6	7.35	1.287	10.21	11.33	22.39	-94.3	6/7	44
1334	0.85	7.13	1.230	6.72	4.58	22.04	-96.5	7/8	48
1340	1.0	7.10	1.267	1.85	3.52	21.49	-86.8		
1346	1.3	7.09	1.292	1.81	3.19	21.70	-82.7		
1351	1.5	7.09	1.310	1.77	2.95	21.75	-78.0		
1356	1.75	7.09	1.331	1.83	2.84	21.75	-75.5		
1402	2.0	7.08	1.350	1.85	2.89	21.81	-73.1		
1405	Start sampling								
1435	end sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	4
turbidity meter	20070403

NOTES AND OBSERVATIONS:

WELL ID: MW-32-131

SAMPLE ID: 007

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 90's, Sun

PROJECT NO: 01.0017869.91
DATE: 7/31/08
SAMPLER(S): MB/AA

SAMPLING INTERVAL (depth in ft below top of casing)

125.8 to 138.3

SAMPLING PORT

131

TOTAL VOLUME PURGED: _____ gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
925	0	Pump on						6/7	58
935		6.09	1.370		6.14	26.11	-31.5	6/7	60
941	0.15	5.70	0.995		3.82	22.50	-107.0		
943	PUMP	OFF							
1040	PUMP	ON							
1042	PUMP	OFF							
1125	Pump on							6/7	55
1130	Pump off								
1350	Pump on							7/8	58 AM
1328	0.6	7.42		10.21					58 AA
1331	Pump on							6/7	48
1333	Pump off								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
turbidity meter	20070493

NOTES AND OBSERVATIONS:

Tracer test sample collected.

WELL ID: MW 32 - 131

SAMPLE ID: _____

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 80's

PROJECT NO: 01.0017869.91
DATE: 8/1/08
SAMPLER(S): MA / AA

SAMPLING INTERVAL (depth in ft below top of casing)

125.8 to 139.3

SAMPLING PORT

131

TOTAL VOLUME PURGED: _____ gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal) L	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1023	0	PUMP ON						7/8	20
1026	0							7/8	30
1028	0.1	water start	s reaching surface					7/8	15
1029	0.2	Air bubbles reached	surf.					7/8	15
1030	0.2							7/8	15
1031	0.2							7/8	20
1033	0.2							7/8	22
1035	0.2	Not enough	pressure. Water	level	no change			7/8	22
1036	0.2							8 7/8	23
1038	0.2							8/8	24
1040	0.2							8/8	26
1043	0.2	No change						8/8	24
1043	0.2							8/8	28
1045	0.2							8/8	30
1048	0.2							8/8	32
1050	0.2							8/8	34
1055	0.2							8/8	36
1057	0.2	Some air bubbles	reaching	surface.				8/8	38
1059	0.2					0		8/8	40
1101	0.2	"	"	"	"	"		8/8	42
1102	0.2							8/8	44
1103	0.2	"	"	"	"	"		8/8	46

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	4
turbidity meter	2007042933

NOTES AND OBSERVATIONS:

WELL ID: MW 32 - 131

SAMPLE ID: _____

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 80's

PROJECT NO: 01.0017869.91
DATE: 9/11/08
SAMPLER(S): MG/A.A

SAMPLING INTERVAL (depth in ft below top of casing)

125.8 to 138.3

SAMPLING PORT

131

TOTAL VOLUME PURGED: _____ gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1104	0.2							8/8	48
1105	0.2							8/8	50
1106	0.2	Air bubbles reaching the surface						8/8	52
1107	0.2							8/8	54
1108	0.2	More	"	"	"	"		8/8	58
1109	0.2	"	"	"	"	"		8/8	60
1111		When pump was completely purged out,							
		high flow of water started to shock the YSI							
1111		Lower the pressure							10
1112	0.05	Most of the water stopped				back into well.			
1115	0.25	Heavy bubbling inside				YSI			40
1116	0.05	"							10
1117	0.05	No bubbles							30
1118	0.05								35
1120	0.05								38
1121	0.05								39
1122	0.05	Error in Venting cycle H2O level kept increasing							40
1123									10
1124	0.2	Bubbling heavy							16
1130									18

Pulled

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	4
turbidity meter	20070429 3

NOTES AND OBSERVATIONS:

WELL ID: MW 32 - 131

SAMPLE ID: NO SAMPLE

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy IPEC
SITE: Buchanan, NY
WEATHER: sunny 80's

PROJECT NO: 01.0017869.91
DATE: 8/11/09
SAMPLER(S): MB/AA

SAMPLING INTERVAL (depth in ft below top of casing)

125.8 to 138.3

SAMPLING PORT

131

TOTAL VOLUME PURGED: 0.33 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1132	0.10	7.21	1.018	---	10.76	25.92	-109.7	8/8	20
1135	0.11	7.37	1.029	---	10.01	26.31	-106.4	"	24
1138	0.12	7.67	0.850	49.62	9.33	26.63	-103.0	"	24
1141	0.13	7.95	0.678	51.22	9.54	27.07	-105.9	8/8	27
1144	0.14	8.10	0.560	38.45	9.79	27.65	-107.3		
1150	0.16	8.29	0.543	36.86	9.96	28.04	-107.1		
1155	0.20	8.30	0.526	34.93	9.99	28.24	-106.8		
1156		PUMP OFF							
1157		PUMP ON START SAMPLE COLLECTION							
1215		PUMP OFF: No water for sampling							

NO SAMPLE

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	4
turbidity meter	20070423

NOTES AND OBSERVATIONS:

WELL ID: MW32 - 149

SAMPLE ID: 007

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 90's °F, Sun

PROJECT NO: 01.0017869.91
DATE: 7/31/08
SAMPLER(S): MD/BA

3

SAMPLING INTERVAL (depth in ft below top of casing)

147.3 to 156.8

SAMPLING PORT

149

TOTAL VOLUME PURGED: 1.8 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
925	0	Pump in						6/7	58
935	0.15	6.86	1.805		0.42	22.83	-261.5	6/7	66
940	0.3	6.86	1.789		0.28	22.38	-269.9		
946	0.4	6.88	1.820	0.92	0.21	22.51	-271.5	6/7	60
952	0.6	6.87	1.863	11.07	0.18	22.24	-291.5		
958	0.75	6.86	1.870	0.37	0.16	21.67	-278.3		
1003	0.85	6.86	1.871	0.47	0.14	21.76	-282.9		
1009	1.0	6.85	1.866	~~12.31~~	0.12	21.58	-275.8		
1013	1.2	6.85	1.863	0.44	0.12	21.72	-285.6		
1018	1.35	6.84	1.862	0	0.12	21.66	-292.2		
1023	1.55	6.84	1.853	0	0.12	21.48	-289.6		
1028	1.65	6.84	1.847	0	0.11	21.69	-283.3		
1109	Start sampling								
1110	End sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
turbidity meter	20070429 3

NOTES AND OBSERVATIONS:

Tracer test sample collected ~~and~~ & Duplicate - 2 sample collected

WELL ID: MW 32 - 173

SAMPLE ID: 1004

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 90's °F, Sun 2

PROJECT NO: 01.0017869.91
DATE: 7/31/08
SAMPLER(S): DBIAA

SAMPLING INTERVAL (depth in ft below top of casing)

165.8 to 174.3

SAMPLING PORT

173

TOTAL VOLUME PURGED: 1.6 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
925	0	Pump on						6/7	58
934	0.1	6.92	1.663		1.28	22.45	-288.3	6/7	66
940	0.3	7.14	1.724		0.42	21.86	-289.8		
946	0.45	7.18	1.753	0.47	0.37	22.21	-281.0	6/7	60
952	0.6	7.20	1.756	0.11	0.31	21.85	-284.1		
957	0.75	7.21	1.754	0	0.27	21.44	-282.6		
1003	1.0	7.21	1.751	0	0.22	21.43	-279.6		
1008	1.2	7.22	1.752	0	0.20	21.20	-277.9		
1013	1.35	7.22	1.751	0	0.20	21.22	-275.6		
1015	Start Sampling								
1052	End Sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
turbidity meter	2X5T154293

NOTES AND OBSERVATIONS:

Tracer test Sample collected

WELL ID: MW 32-190

SAMPLE ID: 007

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

Entergy - IPEC
Buchanan, NY

PROJECT NO: 01.0001869.91
DATE: 7/31/08
SAMPLER(S): MMB

OTHER 90's °F, Sun

SAMPLING INTERVAL (depth in ft below top of casing)

180.3 to 193.9

SAMPLING PORT

190

TOTAL VOLUME PURGED: _____ gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
925	0	Pump on						6/7	58
933	0.1	6.49	1.305		7.73	23.55	-224.4	6/7	66
939	0.15	6.59	1.329		2.13	22.46	-233.5		
945	0.25	6.80	1.340	2.92	1.33	23.14	-215.1	6/7	60
951	0.35	6.97	1.356	0	0.87	22.67	-193.3		
957	0.45	7.06	1.357	0	0.67	22.11	-169.1		
1002	0.6	7.10	1.357	0	0.58	21.94	-148.7		
1007	0.8	7.13	1.357	0	0.50	21.76	-132.2		
1012	1.0	7.15	1.357	0	0.47	21.76	-150.4		
1017	1.2	7.15	1.359	0	0.43	21.74	-136.0		
1022	1.35	7.14	1.366	0	0.39	21.68	-142.3		
1027	1.45	7.15	1.370	0	0.42	21.75	-162.9		
1033	1.55	7.16	1.380	0	0.36	21.73	-124.2		
1038	1.70	7.15	1.385	0	0.34	21.76	-129.6		
1043	1.85	7.15	1.394	0	0.33	21.91	-121.9		
1046	1.95	7.15	1.399	0	0.34	21.99	-122.3		
1049	Start sampling								
1121	End sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	4
turbidity meter	20070493

NOTES AND OBSERVATIONS:

Tracer test sample collected.

WELL ID: MW-36-24
SAMPLE ID: 01

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: rain 90's

PROJECT NO: 01.0017869.91
DATE: 7/24/08
SAMPLER(S): MB/AA
PUMP DEPTH: 17 ft

WATER QUALITY: DTW - 4.30

Time	circle one. DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	purged Notes (gal)
1130	19.195								
1210		PUMP ON							
1215	19.190	7.77	4.654	—	0.77	29.82	-249.7	1.7	
1220	19.189	7.83	4.834	—	0.49	29.66	-217.2		
1230	19.185	7.84	4.881	0.01	0.47	29.79	-150.9		
1240	19.185	7.84	4.898	0.05	0.42	29.81	-81.2		0.75
1245	19.189	7.83	4.900	0.00	0.40	29.79	-58.3		0.85
1254	19.224	7.83	4.904	0.00	0.38	29.82	-57.5		0.95
1300	19.282	7.84	4.906	0.00	0.38	29.87	-59.8		1.05
1307	19.332	7.84	4.907	0.00	0.37	29.95	-57.7		1.20
1312	19.387	7.84	4.906	0.00	0.39	29.99	-53.7		1.40
1315	19.441	7.84	4.906	0.00	0.37	30.01	-52.7		1.55
1318	19.463	7.84	4.906	0.00	0.34	30.03	-52.3		1.70
1318	START SAMPLE COLLECTION								(1)
1357	SAMPLE COMPLETED			1 gal IPEC					

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
flow meter	
turbidity meter	20070429

NOTES AND OBSERVATIONS:
Depth and Depth to Water (DTW) measurements are given in feet from top of casing.
Groundwater Elevation measurements are given in feet msl.
(1) Approx 2 gal purge

WELL ID: MW-36-S
SAMPLE ID: 010

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: rain 80's

PROJECT NO: 01.0017869.91
DATE: 7/24/08
SAMPLER(S): MB/AA
PUMP DEPTH: 52 ft

WATER QUALITY: DTW - 4.37

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
1125	47.119								
1210		PUMP ON							
1214	42.107	PUMP OFF							
1219		PUMP ON							
1220	42.637	7.30	1.735		0.62	23.13	-168.9	0.5	
1225	42.985	7.39	1.658	—	0.20	26.53	-193.6		
1230	43.055	7.36	1.635	14.85	0.35	26.45	-186.3		
1245	43.856	7.32	1.622	9.63	0.43	26.91	-178.1		0.35
1250	45.780	7.31	1.620	9.21	0.43	26.96	-176.6		0.40
1256	46.397	7.30	1.618	12.96	0.42	26.94	-169.8		0.40
1303	46.933	7.26	1.613	13.41	0.45	27.03	-166.2		0.40
1309	47.035	7.27	1.608	17.66	0.45	27.03	-164.1		
1315	47.101	7.26	1.606	16.75	0.44	27.05	-159.2		0.45
1323	46.993	7.25	1.601	29.35	0.40	27.07	-146.7		0.5
1329	46.967	7.28	1.596	31.24	0.51	27.14	-131.7		
1334	47.485	7.28	1.592	34.06	0.54	27.22	-140.2		
1339	47.596	7.22	1.589	37.49	0.55	27.30	-138.6		
1340	Start Sampling								0
1600	Sample completed : 1 gal IPEC								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
flow meter	K-1
turbidity meter	20070429

NOTES AND OBSERVATIONS:
Depth and Depth to Water (DTW) measurements are given in feet from top of casing.
Groundwater Elevation measurements are given in feet msl.
0 0.65 gal purged

WELL ID: MW-37-22
SAMPLE ID: 014

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: rain, ~80° F

PROJECT NO: 01.0017869.91
DATE: 7/24/08
SAMPLER(S): AM/MB
PUMP DEPTH: 17 ft

WATER QUALITY:

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes Start Purged
859	9.23								
914	Pump ON								
920	9.28	7.22	2.651		2.11	28.88	-253.2		0.1
926	9.26	7.20	2.704		0.86	29.18	-260.4		0.3
932	9.26	7.19	2.722		0.62	29.31	-268.2		0.5
937	9.26	7.18	2.731	0.46	0.45	29.36	-256.1		0.7
945	9.25	7.18	2.738	0.46	0.37	29.41	-261.8		1.0
950	9.27	7.18	2.740	0.61	0.33	29.39	-264.2		1.2
955	9.27	7.18	2.743	0.55	0.29	29.38	-268.1		1.4
1000	9.28	7.18	2.748	0	0.26	29.37	-220.6		1.6
1007	9.28	7.17	2.747	0.04	0.25	29.37	-215.2		1.75
1015	9.28	7.16	2.751	3.51	0.27	29.05	-268.1		1.9
1022	9.27	7.16	2.744	1.24	0.30	29.15	-220.7		2.0
1029	9.27	7.16	2.747	0.27	0.29	29.00	-256.0		2.1
1035	9.28	7.16	2.749	0.28	0.31	29.17	-254.1		2.3
1043	9.29	7.16	2.753	0.26	0.35	28.96	-259.6		2.4
1045	Start pump								①
1120	end sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
flow meter	
turbidity meter	20070429 3

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

① ~2.65 gal. purged.

WELL ID: MW37-32
SAMPLE ID: 01

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: rain, ~50°F

PROJECT NO: 01.0017869 91
DATE: 7/24/08
SAMPLER(S): AM/MB
PUMP DEPTH: 29 ft

WATER QUALITY: DTW = 9.17'

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes Amt Purged
858	22.437								
914	Pump on								
925	22.377	7.34	2.377		1.23	28.18	-40.2		0.1
930	22.403	7.40	2.394		0.60	28.57	-32.3		0.15
936	22.399	7.40	2.398	10.56	0.57	28.44	-25.5		0.2
942	22.403	7.40	2.402	8.99	0.98	28.12	-2.5		0.25
947	22.367	7.39	2.401	9.21	1.10	28.08	-11.2		
952	22.385	7.39	2.403	7.18	0.70	27.98	-3.5		0.3
957	22.381	7.38	2.403	5.47	0.82	27.90	-2.3		
1004	22.384	7.38	2.399	5.38	0.90	27.78	6.4		0.35
1009	22.364	7.37	2.396	7.70	0.86	27.69	10.1		0.4
1020	22.399	7.37	2.392	4.01	1.01	27.59	19.0		0.45
1025	22.379	7.37	2.392	4.24	1.07	27.56	24.3		
1030	22.376	7.37	2.389	3.89	0.98	27.56	29.4		0.5
1038	Start Sampling								①
1228	End Sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
flow meter	
turbidity meter	20070429 3

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

① ~ 0.75 gal purged

WELL ID: MW-37-40
SAMPLE ID: 011

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: rain ~80°F

PROJECT NO: 01 0017869.91
DATE: 7/24/08
SAMPLER(S): AM MB
PUMP DEPTH: 39 ft

WATER QUALITY: DTW = 7.61'

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes Start purge @ 851
851	32.923								
914	Pump on								(1)
930	31.446	7.65	2.332		2.75	27.38	-223.7		
936	31.825	7.52	2.350	21.52	2.86	27.28	-244.8		0.2
943	31.470	7.52	1.947	82.10	0.18	26.79	-250.7		0.6
948	32.144	7.48	1.935	441.2	0.20	26.73	-256.3		
954	32.158	7.48	1.934	498.3	0.31	26.90	-256.3		0.7
958	32.171	7.51	1.939	552.1	0.33	27.02	-249.3		
1006	32.277	7.51	1.955	1100	0.34	27.25	-248.8		0.8
1014	32.485	7.52	1.996	634.2	0.35	27.44	-257.8		
1021	32.524	7.54	2.036	200.9	0.29	27.39	-248.0		0.9
1028	32.639	7.54	2.030	144.5	0.32	27.33	-261.5		
1033	31.938	7.55	2.017	127.9	0.37	28.05	-239.8		1.0
1038	32.134	7.58	2.085	831.9	0.53	27.96	-245.8		
1046	31.908	7.56	2.060	595.4	0.49	28.24	-243.2		
1056	32.129	7.54	2.051	306.5	0.32	27.71	-257.4		
1101	32.410	7.54	2.038	265.2	0.33	27.78	-219.1		1.15
1108	32.338	7.54	2.024	166.5	0.38	27.79	-214.9		
1114	32.398	7.54	2.026	101.6	0.53	27.86	-216.7		
1119	32.527	7.54	2.026	112.8	0.62	27.75	-212.4		1.2
1124	32.529	7.53	2.037	109.0	0.62	27.69	-210.7		

1135 Start sampling
1312 End sampling

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
flow meter	
turbidity meter	20070493

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

(1) Pumping as slow as possible, but the water level is dropping.
(2) ~ 1.4 gal purged

WELL ID: MW-37-57
SAMPLE ID: 01

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: rain ~80°F

PROJECT NO: 01.0017869.91
DATE: 7/24/08
SAMPLER(S): AA/MS
PUMP DEPTH: 55 ft

WATER QUALITY: DTW=7.60'

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes (Amt Purged (gal))
855	42.875								
914	Pump on								
952	42.707	7.23	1.763	4.67	1.71	27.36	241.9		
958	42.714	7.25	1.759	3.59	1.40	27.52	246.7		
1005	42.795	7.25	1.756	1.52	1.34	27.55	244.9		0.1
1013	42.851	7.22	1.757	105.6	1.45	27.34	244.4		0.15
1021	42.836	7.22	1.757	25.21	1.50	27.16	244.7		0.2
1026	42.839	7.22	1.758	1.02	1.40	27.38	245.4		
1031	42.768	7.24	1.758	0.38	1.53	27.62	246.8		0.25
1038	42.740	7.25	1.761	5.49	1.57	27.82	251.5		
1045	42.818	7.25	1.763	27.93	1.34	27.75	247.1		
1053	42.806	7.24	1.764	12.27	1.40	27.56	250.5		
1100	42.810	7.24	1.767	6.09	1.68	27.67	251.7		
1106	42.805	7.24	1.766	5.93	1.46	27.80	252.7		
1112	42.885	7.24	1.766	4.85	1.44	27.91	253.7		1.5
1118	42.837	7.24	1.766	4.53	1.44	27.98	254.5		
1123	42.839	7.24	1.767	4.50	1.40	28.02	255.1		
1130	Start sampling								(1)
1320	End sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	2
flow meter	
turbidity meter	2507042943

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

(1) ~ 1.7 gal purged.

WELL ID: MW 40 27

SAMPLE ID: 004

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: cloudy, thunder 70's 6

PROJECT NO: 01.0017869.91
DATE: 8/11/08
SAMPLER(S): M.B.

SAMPLING INTERVAL (depth in ft below top of casing)

18.2 to 35.2

SAMPLING PORT

27

TOTAL VOLUME PURGED: 5.45 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1145	0	PUMP ON						5/6	20
1155	0.9	7.02	4.777	—	5.33	16.53	-4.0		
1159	1.3	7.03	4.758	5.97	5.93	16.52	13.9		
1203	1.75	7.05	4.755	4.22	6.55	16.42	25.4		
1210	2.15	7.05	4.710	4.90	7.09	16.31	43.2		
1219	2.80	7.07	4.660	4.60	7.89	16.25	55.4		
1224	3.15	7.07	4.629	3.35	8.17	16.15	59.9		
1235	4.0	7.07	4.470	2.63	8.76	16.15	70.0		
1242	4.8	7.08	4.423	3.03	9.27	16.74	75.0		
1247	5.1	7.07	4.415	3.21	9.09	1692	74.2		
1251	5.3	7.07	4.422	3.10	8.99	16.95	73.9		
1252		PUMP OFF							
1253		PUMP ON + START SAMPLE COLLECTION							
1319		SAMPLE COMPLETED : 1 QR. IPEC							
		PUMP OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
turbidity meter	200704293

NOTES AND OBSERVATIONS:

WELL ID: MW 40 . 46

SAMPLE ID 005

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: cloudy, thunder 70's 5

PROJECT NO: 01.0017869.91
DATE: 8/11/08
SAMPLER(S): M.B.

SAMPLING INTERVAL (depth in ft below top of casing)

44.2 to 537

SAMPLING PORT

46

TOTAL VOLUME PURGED: 1.15 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1145	0	PUMP ON						5/6	20
1152	0.1	6.61	4.385	-	3.02	18.50	-178.0		
1157	0.2	6.67	4.296	2.64	1.79	18.68	-57.3		
1203	0.3	6.70	4.317	3.56	1.39	18.44	-42.0		
1210	0.55	6.72	4.343	0.00	1.03	18.18	-27.1		
1219	0.80	6.72	4.385	0.00	0.96	17.89	-16.4		
1224	0.90	6.73	4.401	0.00	0.93	17.73	-16.0		
1230	1.0	6.74	4.411	0.00	0.90	17.51	-13.5		
1231		PUMP OFF							
1232		PUMP ON - START SAMPLE COLLECTION							
1335		SAMPLE COMPLETED: 9.8 DEG. C							
		PUMP OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	4
turbidity meter	20070429 3

NOTES AND OBSERVATIONS:

WELL ID: MW 40 - 81

SAMPLE ID: 005

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: cloudy 70's 4

PROJECT NO: (1) 06178669.91
DATE: 8/11/08
SAMPLER(S): M.B.

SAMPLING INTERVAL (depth in ft below top of casing)

64.7 to 84.2

SAMPLING PORT

81

TOTAL VOLUME PURGED: 3.95 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
0845	0	PUMP ON						8/6.2	45
0853	0.75	6.69	4.292	—	2.05	17.04	46.30		
0858	1.0	6.72	4.346	—	1.82	16.64	24.7		
0908	1.9	6.73	4.325	8.26	1.70	15.97	62.5		
0915	2.35	6.72	4.311	0.00	1.63	15.65	67.5		
0922	3.0	6.72	4.323	0.00	1.57	15.56	70.8		
0929	3.5	6.72	4.326	0.00	1.55	15.46	72.0		
0934	3.8	6.72	4.327	0.00	1.55	15.45	73.1		
0935		PUMP OFF							
0936		PUMP ON - START SAMPLE COLLECTION							
0943		SAMPLE COMPLETED : 1 gal IPEC							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	4
turbidity meter	20070293

NOTES AND OBSERVATIONS:

WELL ID: MW 40-100

SAMPLE ID: 007

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: cloudy 70's 3

PROJECT NO: 01.0017869.91
DATE: 9/11/08
SAMPLER(S): M.B.

SAMPLING INTERVAL (depth in ft below top of casing)

93.2 to 106.7

SAMPLING PORT

100

TOTAL VOLUME PURGED: 3.95 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
0845	0	PUMP ON						8/6.2	45
0852	0.4	6.84	2.419	—		19.03	-70.1		
0858	0.8	6.91	2.386	—	17.70	19.13	-35.6		
0907	1.0	6.95	2.361	40.72	15.48	18.81	-16.9		
0915	1.8	6.95	2.328	39.10	13.70	18.81	-10.3		
0921	2.1	6.95	2.321	37.27	12.72	18.72	-3.2		
0926	2.5	6.95	2.318	39.21	11.81	18.57	1.8		
0932	2.8	6.94	2.315	34.83	11.71	18.46	3.9		
0938	3.0	6.93	2.309	33.49	11.06	18.46	8.8		
0944	3.5	6.93	2.300	34.29	10.92	18.40	9.0		
0949	3.8	6.93	2.298	35.06	10.19	18.43	9.5		
0950	PUMP OFF								
0951	PUMP ON - START SAMPLE COLLECTION								
1010	SAMPLE COMPLETED: 1 gal. IPEC								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	5
turbidity meter	20070429 3

NOTES AND OBSERVATIONS:

WELL ID: MW 40-127

SAMPLE ID: 007

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: cloudy 70's 2
PROJECT NO: 01.0017869.91
DATE: 8/11/08
SAMPLER(S): M.B.

SAMPLING INTERVAL (depth in ft below top of casing)

125.2 to 136.7

SAMPLING PORT

127

TOTAL VOLUME PURGED: 1.45 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
0845	0	PUMP ON						8/6.2	45
0852	0.1	6.15	1.756	—	5.39	20.34	-99.2		
0857	0.2	6.36	1.888	—	4.14	19.87	-116.7		
0906	0.55	6.67	2.068	5.74	2.17	18.89	-136.1		
0915	0.80	6.76	2.088	0.00	1.46	18.30	-138.3		
0920	0.90	6.79	2.093	0.00	1.27	18.04	-132.2		
0925	1.0	6.80	2.094	0.00	1.15	17.89	-128.1		
0931	1.05	6.82	2.095	0.00	1.09	17.71	-129.1		
0936	1.10	6.83	2.093	0.00	1.01	17.60	-130.1		
0942	1.25	6.84	2.093	0.00	0.99	17.48	-128.6		
0946	1.30	6.84	2.090	0.00	0.97	17.37	-126.9		
0947		PUMP OFF							
0948		PUMP ON START SAMPLE COLLECTION							
1034		SAMPLE COMPLETED : 1gal. IPEC							
1034		PUMP OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	2
turbidity meter	20070429 3

NOTES AND OBSERVATIONS:

WELL ID: MW 40 162

SAMPLE ID: 005

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy IPEC
SITE: Buchanan, NY
WEATHER: cloudy 70's

PROJECT NO: 01.0017869.91
DATE: 8/11/08
SAMPLER(S): M.B.

SAMPLING INTERVAL (depth in ft below top of casing)

158.7 to 190.3

SAMPLING PORT

162

TOTAL VOLUME PURGED: 0.6 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
0845	0	PUMP	ON					8/6.2	45
0854	0.05	6.14	1.721	—	1.93	22.08	-125.4		
0900	0.10	5.97	1.697	—	1.03	22.12	-153.2		
0905	0.15	6.09	1.695	2.46	0.69	21.86	-189.4		
0915	0.20	6.39	1.641	0.00	0.58	20.73	-213.8		
0920	0.25	6.53	1.610	0.00	0.49	20.42	-213.9		
0925	0.30	6.62	1.588	0.00	0.34	20.31	-214.9		
0930	0.35	6.69	1.580	0.00	0.37	20.27	-213.2		
0935	0.40	6.79	1.570	0.00	0.36	20.08	-213.6		
0940	0.45	6.80	1.565	0.00	0.33	19.97	-213.8		
0941		PUMP	OFF						
0942		PUMP	ON - START SAMPLE			COLLECTION			
1144		SAMPLE	COMPLETED:	1 gal		IPEC			

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
turbidity meter	20070429 3

NOTES AND OBSERVATIONS:

SAMPLE ID: MW45-49 011

GZA GeoEnvironmental of New York
Modified Traditional Purge
Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: Mostly cloudy, 50's F

PROJECT NO: 01.0013569.91
DATE: 8/14/08
SAMPLER(S): AA/MB

WATER COLUMN HEIGHT (ft)

49 (DTB) - 34.72 (DTW) = 14.28 (Well Column Height) ft

Well Diameter: 2 inches

Diameter	Multipliers
1	0.041
2	0.163
4	0.653

GALLONS OF WATER PER WELL VOLUME:

Water Column Height 14.28 x 0.163 (Multiplier) = 2.33 (Well Volume) gallons

2.33 x 1.5 = 3.49 (Designed Purge Volume) gallons

TOTAL VOLUME PURGED: 3.6 gal

WATER QUALITY:

Time	Volume Purged (gal)	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Pump Depth (ft)	Notes
1348	0	34.72	Pump on						±	1
1351	0.2	35.63	7.71	0.787	32.98	8.31	18.76	184.1		
1356	0.75	36.28	7.79	0.711	16.99	6.82	18.66	175.0		
1401	1.4	36.78	7.80	0.711	12.04	6.70	18.58	154.6		
1406	2.1	37.00	7.83	0.744	13.26	6.51	18.60	139.7		
1411	2.8	37.11	7.83	0.770	15.54	6.33	18.62	128.9		
1415	3.3	37.18	7.83	0.782	13.72	6.02	18.65	121.5		
1416	start sampling									
1424	End sampling. Lost									
1425	start	sampling for VOCs								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
turbidity meter	2005704293

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl

1. using Submersible pump & peristaltic pump.

tracer test sample collected

SAMPLE ID: MW-42-78 009

GZA GeoEnvironmental of New York
Modified Traditional Purge
Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny, dry 80°

PROJECT NO.: 01.0017869.91
DATE: 8/4/08
SAMPLER(S): AA / MB

WATER COLUMN HEIGHT (ft)

78.00 (DTB) − 33.23 (DTW) @ 1132 = 44.77 (Well Column Height)

Well Diameter: _____ inches

Diameter	Multipliers
1	0.041
2	0.163
4	0.653

GALLONS OF WATER PER WELL VOLUME:

Water Column Height 44.77 x 0.041 (Multiplier) = 1.84 (Well Volume) gallons

1.84 x 1.5 = 2.76 (Designed Purge Volume) gallons

TOTAL VOLUME PURGED: 2.__ gal

WATER QUALITY:

Time	Volume Purged (gal)	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Pump Depth (ft)	Notes
1141	0									
1145	0.25		7.29	1.878	25.55	6.50	18.36	184.6		
1148	0.75		7.22	1.873	248.6	5.42	17.93	174.1		
1150	1.0		7.17	1.860	305.7	4.96	17.79	168.9		
1153	1.6		7.16	1.835	345.7	4.59	17.54	158.8		
1155	2.0		7.15	1.823	347.3	4.30	17.40	151.6		
1158	2.5		7.13	1.816	358.7	4.15	17.40	146.5		
1200	2.76		7.12	1.813	346.5	4.09	17.40	140.1		
1201	PUMP OFF									
1203	PUMP ON START SAMPLE COLLECTION									
1207	SAMPLE COMPLETED : 1 gal. SPEC									

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
turbidity meter	20070429

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

* Tracer Test sample taken @ 1208

SAMPLE ID: MW-42-78 009

GZA GeoEnvironmental of New York
Modified Traditional Purge
Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny, dry 80°

PROJECT NO.: 01.0017869.91
DATE: 8/4/08
SAMPLER(S): AA / MB

WATER COLUMN HEIGHT (ft)

78.00 (DTB) − 33.23 (DTW) @ 1132 = 44.77 (Well Column Height)

Well Diameter: _____ inches

Diameter	Multipliers
1	0.041
2	0.163
4	0.653

GALLONS OF WATER PER WELL VOLUME:

Water Column Height 44.77 x 0.041 (Multiplier) = 1.84 (Well Volume) gallons

1.84 x 1.5 = 2.76 (Designed Purge Volume) gallons

TOTAL VOLUME PURGED: 2.__ gal

WATER QUALITY:

Time	Volume Purged (gal)	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Pump Depth (ft)	Notes
1141	0									
1145	0.25		7.29	1.878	25.55	6.50	18.36	184.6		
1148	0.75		7.22	1.873	248.6	5.43	17.93	174.1		
1150	1.0		7.17	1.860	305.7	4.96	17.79	168.9		
1153	1.6		7.16	1.835	345.7	4.59	17.54	158.8		
1155	2.0		7.15	1.823	347.3	4.30	17.40	151.6		
1158	2.5		7.13	1.816	358.7	4.15	17.40	146.5		
1200	2.76		7.12	1.813	346.5	4.09	17.40	140.1		
1201	PUMP OFF									
1203	PUMP ON START SAMPLE COLLECTION									
1207	SAMPLE COMPLETED : 1 gal. SPED									

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
turbidity meter	20070429

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

* Tracer Test sample taken @ 1208

WELL ID: MW14-67
SAMPLE ID: _____

GZA GeoEnvironmental of New York
Modified Traditional Purge
Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 80's, sun

PROJECT NO.: 01.0017869.91
DATE: 7/25/18
SAMPLER(S): MB/MA

WATER COLUMN HEIGHT (ft)

67 (DTB) − 53.38 (DTW) = 13.62 ft (Well Column Height)

Well Diameter: 2 inches

Diameter	Multipliers
1	0.041
2	0.163
4	0.653

GALLONS OF WATER PER WELL VOLUME:

Water Column Height 13.62 x 0.163 (Multiplier) = 2.2 gallons (Well Volume)

2.2 x 1.5 = 3.3 gallons (Designed Purge Volume)

TOTAL VOLUME PURGED: 3.5 gal

WATER QUALITY:

Time	Volume Purged (gal)	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Pump Depth (ft)	Notes
927	0	(6.581)								
934	Pump on									
937	0.3	5.105	7.12	2.692	198.7	4.00	17.40	20.5		
942	0.6	7.150	7.19	2.666	66.96	6.39	17.80	50.7		
947	0.7	7.309	7.24	2.630	26.00	6.96	19.01	62.8		1
953	1.6	7.489	7.30	2.580	38.28	7.64	18.31	42.6		
959	2.4	1.347	7.29	2.588	48.18	7.74	17.99	29.4		
1001	3.0	1.133	7.27	2.621	125.9	7.55	18.00	0.3		
1003	3.3	1.135	7.25	2.661	172.9	7.14	18.07	-3.9		
1008	Start sampling									
1010	all pump water to recharge									
1016	resume sampling									
1018	allowing well to recharge									
1108	Pump off									
1114	end sampling									

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
turbidity meter	20170254

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

Heavy rain yesterday.

1. USing submersible pump + peristaltic pump to purge the well because no water was coming out with only the submersible pump.

WELL ID: MW-14-102
SAMPLE ID: _____

GZA GeoEnvironmental of New York
Modified Traditional Purge
Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 80's Sun

PROJECT NO: 01.0017869.91
DATE: 7/25/08
SAMPLER:S: MB/AM

WATER COLUMN HEIGHT (ft)

102 (DTB) − 62.43 (DTW) = 39.57 (Well Column Height) ft

Well Diameter: 1 inches

Diameter	Multipliers
1	0.041
2	0.163
4	0.653

GALLONS OF WATER PER WELL VOLUME:

Water Column Height 39.57 x 0.041 (Multiplier) = 1.6 gallons (Well Volume)

1.6 x 1.5 = 2.4 gallons (Designed Purge Volume)

TOTAL VOLUME PURGED: 2.4 gal

WATER QUALITY:

Time	Volume Purged (gal)	circle one: (DTW) or GW Elevation	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Pump Depth (ft)	Notes
920	0	39.57								
935	Pump on									
943	Pump off									
953	pump on									
958	0.1	-	7.58	1.421	3243	7.88	25.00	154.4		1
1013	0.3	-	7.70	1.448	1100	8.00	21.91	89.2		
1019	allowing well to recharge - Pump off									
1033	Pump on									
1034	1.0	-	7.61	1.584	182.1	6.81	19.60	84.4		
1038	allowing well to recharge - Pump off									
1108	Pump on									
1113	1.3	-	7.61	1.600	1373	8.57	24.03	76.5		
1119	1.7	-	7.19	1.600	1408	7.40	19.87	79.3		
1122	2.2	-	7.14	1.600	1534	7.92	19.15	75.7		
1124	Pump off									
1130	Start sampling								1243 pump off, 1248 End Sampling	
1132	Pump off - allowing well to recharge									

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
turbidity meter	2007 D1254

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

Heavy rain yesterday

1. Purge water + sample very silty.

WELL ID: MW-95-42
SAMPLE ID: 013

GZA GeoEnvironmental of New York
Modified Traditional Purge
Sampling Data Sheet

CLIENT: Entergy IPEC
SITE: Buchanan, NY
WEATHER: 80's °F, sun

PROJECT NO: 01.0007869.91
DATE: 7/25/08
SAMPLER(S): AA/K-B

WATER COLUMN HEIGHT (ft)

42 (DTB) − 21.43 (DTW) = 21.57 ft (Well Column Height)

Well Diameter: 2 inches

Diameter	Multipliers
1	0.041
2	0.163
4	0.653

GALLONS OF WATER PER WELL VOLUME:

Water Column Height 21.57 x 0.163 (Multiplier) = 3.5 gallons (Well Volume)

3.5 x 1.5 = 5.25 gallons (Designed Purge Volume)

TOTAL VOLUME PURGED: 5.3 gal

WATER QUALITY:

Time	Volume Purged (gal)	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Pump Depth (ft)	Notes
1057	0	16.624							37.0	
1100		Pump on								
1104		Pump off								
1124		Pump on.								
1135	0.3	17.018	8.75	1.033	196.5	2.66	21.65	45.9		1
1139	0.6	14.484	8.45	1.089	32.94	0.98	19.94	26.3		
1144	1.3	12.701	8.36	1.095	14.28	0.45	19.42	13.3		
1146	1.7	10.791	8.40	1.092	33.47	0.27	18.28	6.9		
1150	4.0	3.246	8.27	1.148	27.39	0.53	18.74	8.7		
1152	Pump off - allowing well to recharg.									
1253	Pump on									
1254	4.8	1.050	8.29	1.107	43.32	1.99	21.05	2.0		
1257	Pump off - allowing well to recharge									
1400	Pump on									
1405	Pump off. - allowing well to recharge.									
1410	Pump on									
1415	Pump off									

Equipment Used	Equipment Identification #
1633 Pump off 1640 end sample	
YSI 556 MPS Reader and 5563 Sonde	3
turbidity meter	20070493
* note: Pull out tubing and use the water in it to complete the 1 gal. sample.	

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

1. Using Submersible pump & peristaltic pump to sample/purge well.
2. Sample this level first: purge early in the morning and let recharge. Takes all day.

WELL ID: MW45-61
SAMPLE ID: 013

GZA GeoEnvironmental of New York
Modified Traditional Purge
Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 82°F, Sun

PROJECT NO: 01.0017869.91
DATE: 7/28/08
SAMPLER S): AA/MB

WATER COLUMN HEIGHT (ft)

61 (DTB) − 23.50 (DTW) = 37.50 ft (Well Column Height)

Well Diameter: 1 inches

Diameter	Multipliers
1	0.041
2	0.163
4	0.653

GALLONS OF WATER PER WELL VOLUME:

Water Column Height 37.5 x 0.041 (Multiplier) = 1.5 gallons (Well Volume)

1.5 x 1.5 = 2.25 gallons (Designed Purge Volume)

TOTAL VOLUME PURGED: 2.3 gal

WATER QUALITY:

Time	Volume Purged (gal)	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Pump Depth (ft)	Notes
1252	0	23.50							58.0	
1323	Pump on									
1325	0.3	—	7.60	1.116	88.84	3.60	21.55	148.4		
1330	0.6	—	7.31	1.159	184.5	3.15	20.89	135.8		
1335	1.4	—	7.24	1.147	283.8	2.43	20.83	126.2		
1339	1.7	—	7.22	1.149	296.8	2.04	20.83	127.0		
1340	Start Sampling									
1345	end Sampling									

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	2
turbidity meter	20072H293

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

WELL ID: MW-46
SAMPLE ID: 013

GZA GeoEnvironmental of New York
Modified Traditional Purge
Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 80's, Sun, humid

PROJECT NO. 01.0017869.91
DATE: 7/24/08
SAMPLER(S): MA/AA

WATER COLUMN HEIGHT (ft)

30 (DTB) - 2.86 (DTW) = 27.14 ft (Well Column Height)

Well Diameter: _____ inches

Diameter	Multipliers
1	0.041
2	0.163
4	0.653

GALLONS OF WATER PER WELL VOLUME:

Water Column Height 27.14 x 0.653 (Multiplier) = 17.7 gallons (Well Volume)

17.7 x 1.5 = 36.65 gallons (Designed Purge Volume)

TOTAL VOLUME PURGED: 36.7 gal

WATER QUALITY:

Time	Volume Purged (gal)	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Pump Depth (ft)	Notes
1503	0	Pump on								
1505	0.3	24.316	8.72	0.238	45.68	2.52	21.77	38.7		
1515	2.8	20.947	8.16	0.118	21.34	21.15	21.15	-57.9		
1520	4.1	19.654	8.14	0.124	19.72	21.23	21.23	-90.0		
1525	6.3	18.345	8.17	0.108	56.89	21.27	21.27	-46.0		
1535	9.1	16.192	8.00	0.090	59.92	21.23	21.23	149.4		
1540	11.3	14.530	7.79	0.085	63.06	21.39	21.39	225.8		
1550	15.2	11.204	7.53	0.339	35.70	21.62	21.62	269.4		
1558	18.0	9.580	7.67	0.567	24.09	21.69	21.69	277.9		
1605	20.3	7.472	7.71	0.678	15.74	7.05	21.71	280.7		
1615	24.0	5.304	7.74	0.756	23.76	7.69	21.64	283.1		
1632	28.0	4.905	7.89	0.751	16.96	7.03	21.47	277.0		
1637	31.0	4.894	7.77	0.772	17.93	7.07	21.30	279.8		
1642	34.0	4.726	7.76	0.767	15.95	8.08	22.69	281.8		
1649	36.7	4.831	7.83	0.783	15.22	7.63	21.98	278.1		

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
turbidity meter	2007043

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

1649 Start sampling
1656 end sampling

WELL ID: MW49-26
SAMPLE ID: 013

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: Sun, 80's°F

PROJECT NO: 01.0017869.91
DATE: 7/20/08
SAMPLER(S): AM/MB
PUMP DEPTH: 20.0 ft

WATER QUALITY: 12.91' DTW

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
1347	11.609								
1351	Pump on							2	
1405	11.529	7.51	2.735	14.40	4.01	25.60	109.9		
1410	11.503	7.44	2.708	6.44	0.85	24.75	96.1		
1415	11.482	7.44	2.712	4.68	0.57	24.66	93.9		
1420	11.459	7.43	2.719	3.79	0.52	24.68	74.3		
1425	11.443	7.43	2.731	2.79	0.39	24.52	78.7		
1430	11.422	7.43	2.742	2.59	0.37	24.53	75.8		
1435	11.397	7.44	2.755	2.73	0.36	24.59	73.1		
1437	start sampling								1.25 gal purged
1503	end sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
flow meter	3
turbidity meter	20070129

NOTES AND OBSERVATIONS:
Depth and Depth to Water (DTW) measurements are given in feet from top of casing.
Groundwater Elevation measurements are given in feet msl.

WELL ID: MW49-42
SAMPLE ID: 013

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: Sun, 80's °F

PROJECT NO: 01.0017869.91
DATE:
SAMPLER(S): AA/MB
PUMP DEPTH: 37.0 ft

WATER QUALITY: 12.81' DTW

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
1348	13.836								
1356	Pump on							2	
1406	13.935	7.12	2.559	5.32	4.46	25.55	87.1		
1410	13.768	7.04	2.533	6.43	4.10	25.16	54.8		
1415	13.696	7.02	2.526	4.14	3.93	25.01	41.9		
1420	13.667	7.01	2.527	4.23	3.63	24.90	39.2		
1425	13.651	7.01	2.527	~~2.89~~	3.55	24.68	31.0		
1430	13.624	7.00	2.533	2.24	3.40	24.57	28.8		
1435	13.604	7.03	2.537	2.33	3.34	24.46	21.5		
1439	Start Sampling								1.35 gal purged
1500	end Sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	5
flow meter	1
turbidity meter	20701254

NOTES AND OBSERVATIONS:
Depth and Depth to Water (DTW) measurements are given in feet from top of casing.
Groundwater Elevation measurements are given in feet msl.

WELL ID: MW49-65
SAMPLE ID: 013

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 80's F, sun

PROJECT NO: 01.0017869.91
DATE: 7/30/08
SAMPLER(S): AA/MB
PUMP DEPTH: 61.0 ft

WATER QUALITY: 12.29' DTW

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
1216	13.681								
1220	Pump on							1.0	
1230	13.474	6.92	2.368	9.26	3.72	26.00	187.8	~~1.0~~	
1235	13.469	7.00	2.362	9.82	2.32	26.05	168.9		
1240	13.423	7.05	2.325	7.90	1.71	26.09	163.8		
1245	13.412	7.09	2.322	6.02	1.32	26.02	157.7		
1250	13.362	7.11	2.322	2.86	1.12	26.04	153.6		
1255	13.313	7.13	2.335	3.03	1.08	25.79	149.0		
1300	13.303	7.14	2.336	2.24	0.83	25.83	144.0		
1305	13.265	7.14	2.338	2.17	0.80	25.84	140.7		
1310	13.254	7.15	2.348	2.05	0.73	25.75	137.7		
1315	13.181	7.15	2.353	2.25	0.74	25.78	134.6		
1317	Start sampling								
1358	end sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	4
flow meter	2
turbidity meter	20701254

NOTES AND OBSERVATIONS:
Depth and Depth to Water (DTW) measurements are given in feet from top of casing.
Groundwater Elevation measurements are given in feet msl.

WELL ID: MW-50-42
SAMPLE ID: 0114

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny, 80's

PROJECT NO: 01.0017869.91
DATE: 7/31/08
SAMPLER(S): MB / AA
PUMP DEPTH: 27 ft

WATER QUALITY: 9.11

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (^{0}C)	ORP	Rate (gal/hr)	purged gal. Notes
1205	35.918								
1210	PUMP ON								
1220	35.900	8.17	0.917	—	8.01	28.63	+154.5		
1228	35.902	8.29	2.981	—	3.04	28.78	-160.8		
1235	35.892	8.33	3.117	9.11	1.22	28.83	-166.1		
1240	35.895	8.33	3.171	4.35	1.21	28.79	-162.7		
1250	35.869	8.36	3.247	3.57	1.40	28.69	-176.8		0.15
1256	35.876	8.40	3.267	3.39	1.10	28.61	-183.4		0.20
1306	35.871	8.33	3.247	3.06	0.91	28.57	-171.8		0.45
1316	35.871	8.30	3.225	3.21	0.97	28.58	-169.3		0.65
1321	35.846	8.29	3.219	3.09	0.99	28.58	-170.8		0.75
1325	START SAMPLE COLLECTION								
1543	SAMPLE COMPLETED: 1 gal SPEC								
1543	PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
flow meter	K.1
turbidity meter	20070125L

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

WELL ID: MW-50-66
SAMPLE ID: 014

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 80's

PROJECT NO: 01.0017869.91
DATE: 7/31/08
SAMPLER(S): MS / AA
PUMP DEPTH: 60 ft

WATER QUALITY: DTW - 5.10

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
1208	89.769								
1210	PUMP	ON							
1236	89.162	7.47	1.328	--	7.28	28.67	109.4		
1244	89.093	7.44	2.589	--	2.83	28.68	60.4		
1249	89.203	7.46	2.590	5.53	1.50	28.69	47.7		
1255	89.230	7.47	2.591	2.19	1.00	28.71	40.3		0.05
1305	89.148	7.49	2.596	2.63	0.89	28.81	59.8		0.07
1313	89.324	7.50	2.607	2.34	1.37	28.98	121.3		0.09
1326	89.088	7.49	2.622	2.09	1.36	28.93	157.2		0.10
1331	89.060	7.48	2.629	2.17	1.50	28.97	159.3		0.15
1336	89.153	7.47	2.631	2.39	1.52	28.98	161.1		0.12
1339	89.207	7.47	2.627	2.28	1.54	28.99	158.9		0.10
1340	START	SAMPLE	COLLECTION						
1702	SAMPLE	COMPLETED	: 1 gal	IPEC					
1702	PUMP	OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
flow meter	K1
turbidity meter	20070125A

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

Total purged 0.35 gal

WELL ID: MW 51 - 40

SAMPLE ID: 008

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 80's 7

PROJECT NO: 01.0017869.91
DATE: 8/8/08
SAMPLER(S): M. B.

SAMPLING INTERVAL (depth in ft below top of casing)

29.7 to 44.2

SAMPLING PORT

40

TOTAL VOLUME PURGED: 2.55 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1150	0	PUMP ON						7.4/8.4	23
1152		PUMP OFF						6.5/8.4	23
1331	0	PUMP ON							
1335	0.1	7.02	2.645	7.87	6.34	15.21	-110.4		
1340	0.3	7.02	2.652	13.94	5.59	15.09	-76.1		
1345	0.75	7.04	2.659	14.22	5.38	15.00	-43.1		
1352	1.0	7.01	2.656	5.70	5.29	14.73	-22.8		
1400	1.30	7.00	2.654	8.58	5.18	14.69	-14.0		
1406	1.80	7.02	2.653	7.51	5.11	14.97	-6.1		
1410	2.0	7.02	2.649	7.09	5.12	15.02	-5.9		
1415	2.4	7.02	2.652	7.41	5.10	14.89	-5.0		
1416		PUMP OFF							
1417		PUMP ON - START SAMPLE COLLECTION							
1440		SAMPLE COMPLETED - 1 gal IPEC							
		PUMP OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
turbidity meter	200704293

NOTES AND OBSERVATIONS:

WELL ID: MW 51 79

SAMPLE ID: 008

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 80's 6

PROJECT NO: 01.0017869.91
DATE: 8/8/08
SAMPLER(S): M.B.

SAMPLING INTERVAL (depth in ft below top of casing)

63.2 to 81.2

SAMPLING PORT

79

TOTAL VOLUME PURGED: 2.85 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1150	0	PUMP ON						7.4/8.4	23
1152	0							6.5/8.4	38
1155	0.1	6.77	2.465	78.83	1.93	14.49	-129.5		
1203	0.75	6.89	2.448	89.91	1.91	14.26	-80.2		
1210	1.0	6.94	2.452	75.80	1.88	14.19	-72.3		
1215	1.35	6.93	2.451	69.97	1.95	14.22	-64.7		
1220	1.75	6.93	2.459	67.66	1.92	14.11	-61.2		
1225	2.0	6.94	2.461	63.06	1.96	14.28	-57.0		
1230	2.25	6.94	2.465	64.79	1.95	14.40	-53.8		
1235	2.70	6.94	2.472	66.71	1.96	14.25	-50.3	↓	↓
1236		PUMP OFF							
1237		START SAMPLE COLLECTION							
1255		SAMPLE COMPLETED:			1 gal	IPEC	ROUTINE		
1312		"		"	1 gal	IPEC	SPIKE		"S"
1330		"		"	1 gal	IPEC	DUPLICATE		"D"
1330		PUMP OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
turbidity meter	20070429 3

NOTES AND OBSERVATIONS:

WELL ID: MW 51 104

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 80's 4

PROJECT NO: 01.0017869.91
DATE: 8/8/08
SAMPLER(S): M. B.

SAMPLING INTERVAL (depth in ft below top of casing)

101.2 to 111.2

SAMPLING PORT

104

TOTAL VOLUME PURGED: 2.75 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
0950	0	PUMP ON						8.4/5	40
0955	0.1	6.71	2.434	—	1.27	14.47	-120.8		
1000	0.65	6.87	2.469	—	1.16	14.09	-94.4		
1010	1.05	6.89	2.472	0.0	1.12	13.93	-90.3		
1014	1.30	6.90	2.473	0.0	1.08	13.77	-85.1		
1023	2.0	6.91	2.467	0.0	1.04	13.84	-78.6		
1028	2.2	6.91	2.469	0.0	1.01	13.72	-75.0		
1032	2.6	6.90	2.469	0.0	1.00	13.64	-72.8	↓	↓
1033									
1034									
1050									
1050									

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
turbidity meter	20070429 3

NOTES AND OBSERVATIONS:

WELL ID: MW 51 - 135

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 80's

PROJECT NO: 01.0017866.01
DATE: 8/8/08
SAMPLER(S): M.B.

SAMPLING INTERVAL (depth in ft below top of casing)

130.2 to 143.7

SAMPLING PORT

135

TOTAL VOLUME PURGED: 1.75 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
0950	0	PUMP ON						8.4/5	40
0956	0.05	6.71	2.251	—	4.09	15.84	-173.2		
1001	0.15	7.12	2.260	—	1.10	15.20	-165.1		
1010	0.70	7.14	2.271	3.60	0.59	15.00	-131.2		
1015	0.85	7.15	2.272	0.09	0.54	14.91	-116.1		
1022	1.0	7.15	2.276	0.00	0.50	14.89	-108.2		
1027	1.10	7.15	2.281	0.0	0.46	14.81	-103.4		
1031	1.20	7.14	2.281	0.0	0.45	14.70	-101.7		
1037	1.35	7.15	2.280	0.0	0.44	14.73	-91.7		
1042	1.50	7.15	2.280	0.0	0.43	14.78	-91.0		
1047	1.60	7.15	2.280	0.0	0.42	14.80	-92.2		
1048		PUMP OFF		OFF					
1049		START SAMPLE COLLECTION:							
1116		SAMPLE COMPLETED: 1 gal IPEC							
1116		PUMP OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
turbidity meter	20070429 3

NOTES AND OBSERVATIONS:

WELL ID: MW 51 163

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 90's 2

PROJECT NO: 01.0017869.91
DATE: 8/8/08
SAMPLER(S): M. B.

SAMPLING INTERVAL (depth in ft below top of casing)

154.7 to 166.2

SAMPLING PORT

163

TOTAL VOLUME PURGED: 0.75 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
0950	0	PUMP ON							
0957	0.02	6.11	2.115	—	4.23	17.91	-39.1	8.4/5	40
1002	0.10	6.57	2.026	—	0.85	17.43	-73.9	"	"
1011	0.15	6.88	2.011	0.0	0.37	17.00	-91.7	"	"
1016	0.20	6.89	2.018	0.0	0.31	16.92	-88.9	"	"
1021	0.25	6.88	2.019	0.0	0.30	16.91	-88.0	"	"
1026	0.35	6.88	2.020	0.0	0.27	16.90	-85.4	"	"
1030	0.45	6.86	2.026	0.0	0.27	16.68	-84.8	"	"
1035	0.60	6.87	2.020	0.0	0.25	16.65	-83.1	↓	↓
1036		PUMP OFF							
1027		START SAMPLE COLLECTION							
1150		SAMPLE COMPLETED: 1 gal IPEC							
1150		PUMP OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	2
turbidity meter	10070493

NOTES AND OBSERVATIONS:

WELL ID: MW 51 189

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 80's

PROJECT NO: 01.0017366.91
DATE: 8/8/08
SAMPLER(S): M. B

SAMPLING INTERVAL (depth in ft below top of casing)

184.2 to 197.8

SAMPLING PORT

189

TOTAL VOLUME PURGED: 1.40 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
0950	0	PUMP ON						8.4/5	40
0958	0.1	6.58	1.776	—	1.50	16.10	-161.0		
1003	0.15	6.90	1.772	—	0.50	15.58	-190.1		
1012	0.60	6.89	1.822	0.0	0.42	15.29	-202.3		
1017	0.75	6.88	1.820	0.0	0.36	15.40	-205.5		
1021	0.85	6.90	1.823	0.0	0.35	15.19	-227.8		
1026	0.95	6.91	1.816	0.0	0.30	15.20	-229.9		
1030	1.05	6.93	1.808	0.0	0.31	15.20	-254.8		
1035	1.15	6.94	1.801	0.0	0.30	15.14	-257.2		
1039	1.25	6.96	1.798	0.0	0.29	15.25	-256.8	↓	↓
1040		PUMP OFF							
1041		START SAMPLE COLLECTION							
1117		SAMPLE COMPLETED : 1 gal IPEC							
1117		PUMP OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
turbidity meter	20070429 3

NOTES AND OBSERVATIONS:

WELL ID: _____
SAMPLE ID: MW53-82-008
Pg 1 of 2

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: Sun, 60's F

PROJECT NO: 01.0017869.91
DATE: 8/4/08
SAMPLER(S): AA/MB
PUMP DEPTH: 75 ft

WATER QUALITY: DTW = 58.10'

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
914	23.340								
927	Pump on								1
936	Pump off								2
938	Pump on							1	3
949	22.962	7.40	1.524	15.93	4.07	25.39	196.8		
955	23.103	7.53	1.498	21.60	4.21	26.13	179.9		
1000	23.117	7.60	1.478	28.50	4.09	26.47	172.0		
1005	23.055	7.64	1.468	33.53	4.28	26.45	163.2		
1010	23.045	7.70	1.444	37.08	4.61	25.99	155.5		
1015	23.005	7.73	1.431	52.21	4.80	26.42	151.0		
1020	23.027	7.75	1.429	86.67	4.98	26.97	146.3		
1025	23.091	7.77	1.430	63.97	5.18	27.21	148.2	1.4	
1030	23.111	7.80	1.429	58.25	5.00	26.50	150.7		
1035	23.106	7.82	1.423	59.19	4.88	26.28	140.4	~~1.7~~ 1.00	
1040	23.089	7.84	1.421	38.74	4.83	26.16	130.2		
1045	23.058	7.84	1.427	28.30	5.10	25.12	123.1		
1047	Pump off	- no water coming out of the well							
1054	Pump on								4
1055	23.200	7.80	1.417	53.84	4.96	25.71	118.7	1	
1100	23.156	7.83	1.414	49.15	4.34	26.50	116.9		

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
flow meter	2
turbidity meter	2007Q254

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

1. using peristaltic pump.
2. no water coming out of the well
3. using submersible pump.
4. using peristaltic + submersible pumps

WELL ID: _____
SAMPLE ID: _____

MW53-82-008
Pg 2 of 2

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: Sun, 80's F

PROJECT NO: 01.0017869.91
DATE: 8/14/18
SAMPLER(S): AA/MB
PUMP DEPTH: 75 ft

WATER QUALITY:

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
1105	23.138	7.85	1.414	40.11	4.11	26.75	114.3		
1111	23.138	7.92	1.410	45.47	4.38	26.42	104.2		
1116	23.193	7.94	1.409	44.04	4.25	26.48	101.9		
1121	23.196	7.92	1.406	43.19	4.18	26.84	102.3		5
1122	start sampling								
1225	end sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
flow meter	2
turbidity meter	20070254

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

5 ~ 1.8 gal purged.

Tracer test sample collected

SAMPLE ID: MW53-120-009

GZA GeoEnvironmental of New York
Modified Traditional Purge
Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: Sun, 51's'F

PROJECT NO: 01.0017869.91
DATE: 8/4/18
SAMPLER(S): AA / MB

WATER COLUMN HEIGHT (ft)

120 (DTB) − 58.79 (DTW) = 61.21 (Well Column Height) ft

Well Diameter: 1 inches

Diameter	Multipliers
1	0.041
2	0.163
4	0.653

GALLONS OF WATER PER WELL VOLUME:

Water Column Height 61.21 x 0.041 (Multiplier) = 2.510 gallons (Well Volume)

2.510 x 1.5 = 3.76 gallons (Designed Purge Volume)

TOTAL VOLUME PURGED: 3.9 gal

WATER QUALITY:

Time	Volume Purged (gal)	circle one: (DTW) or GW Elevation	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Pump Depth (ft)	Notes
900	0	58.79							105	
934	0	Pump on.								
938	0.2	—	7.40	1.523	46.45	6.10	21.43	169.9		1
943	0.5	—	7.28	1.527	132.3	3.38	21.50	149.0		
948	0.7	—	7.36	1.536	220.2	2.48	23.03	133.2		
954	1.0	—	7.37	1.576	792.6	1.90	22.08	122.3		
959	2.0	—	7.10	1.646	1101	1.03	19.08	124.4		
1004	3.2	—	7.17	1.675	1180	0.71	18.71	108.0		
1006	Pump off									
1010	start sampling									
1015	end sampling									

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
turbidity meter	9500701254

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

1. Used waterra pump

tracer test sample collected.

WELL ID: MW 54 - 37

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

6

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: cloudy 80's

PROJECT NO: 01.0017869.91
DATE: 7/22/08
SAMPLER(S): M.B

SAMPLING INTERVAL (depth in ft below top of casing)

29.0 to 42.0

SAMPLING PORT

37

TOTAL VOLUME PURGED: 2.7 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1600	0	PUMP ON							
1609	0.4	7.06	2.243	—	0.56	21.61	-59.3	6/4	19
1614	0.8	7.17	2.251	—	0.49	21.62	-22.4		
1620	1.1	7.22	2.251	0.94	0.47	21.65	-3.4		
1624	1.4	7.24	2.251	0.00	0.46	21.67	+7.8		
1629	1.9	7.26	2.252	0.00	0.48	21.72	20.9		
1637	2.15	7.24	2.252	0.00	0.48	21.74	23.4		
1641	2.45	7.26	2.252	0.00	0.48	21.75	23.0	↓	↓
1643	START	SAMPLE COLLECTION							
1700	SAMPLE COMPLETED	1 gal	TPEC						

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
turbidity meter	20070423

NOTES AND OBSERVATIONS:

WELL ID: MW 54 - 58

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

5

CLIENT: Entergy - IPEC
SITE: Buchapan, NY
WEATHER: cloudy 80's

PROJECT NO: 01.0017869.91
DATE: 7/22/08
SAMPLER(S): M.B.

SAMPLING INTERVAL (depth in ft below top of casing)

51.5 to 64.0

SAMPLING PORT

58

TOTAL VOLUME PURGED: 1.95 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1600	0	PUMP ON							
1607	0.15	6.59	1.646	—	1.01	21.73	-117.7	6/4	19
1613	0.40	6.87	1.591	—	0.54	21.62	-146.0	↓	↓
1619	0.80	7.00	1.601	3.38	0.31	21.64	-152.3	↓	↓
1625	1.0	7.04	1.631	2.26	0.32	21.67	-152.4	↓	↓
1631	1.3	7.06	1.659	0.00	0.29	21.74	-149.6	↓	↓
1636	1.5	7.07	1.663	0.00	0.29	21.76	-149.2	↓	↓
1640	1.7	7.07	1.673	0.00	0.28	21.76	-148.5	↓	↓
1641	START	SAMPLE COLLECTION							
1705	SAMPLE COMPLETED	: 1 gal IPEC							
				0					

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	2
turbidity meter	20070428

NOTES AND OBSERVATIONS:

WELL ID: MW 54 - 123

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: cloudy 80's

PROJECT NO: 01.0017869.91
DATE: 7/22/08
SAMPLER(S): M.B

SAMPLING INTERVAL (depth in ft below top of casing)

116.0 to 126.0

SAMPLING PORT

123

TOTAL VOLUME PURGED: 3.65 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1415	0	PUMP ON						8/4	42
1427	0.8	6.97	1.659	—	0.98	21.50	-142.7		
1430	1.0	6.92	1.662	—	0.76	21.35	-150.3		
1440	1.6	7.03	1.670	7.30	0.42	20.96	-164.9		
1445	2.0	7.06	1.671	6.27	0.30	20.83	-168.3		
1455	2.7	7.09	1.671	7.03	0.37	20.69	-159.8		
1502	3.0	7.11	1.670	7.15	0.35	20.47	-155.3		
1508	3.4	7.12	1.669	7.09	0.33	20.38	-152.8	4	4
1510	PUMP	OFF							
1511	START	SAMPLE	COLLECTION						
1520	SAMPLE	COMPLETED							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
turbidity meter	20070 4293

NOTES AND OBSERVATIONS:

WELL ID: MW 54 - 144

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: cloudy, 80's

PROJECT NO.: 01.0017869.91
DATE: 7/22/08
SAMPLER(S): M.B.

SAMPLING INTERVAL (depth in ft below top of casing)

135.0 to 165.5

SAMPLING PORT

144

TOTAL VOLUME PURGED: 3.25 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1415	0	PUMP	ON					8/4	42
1426	0.30	6.64	1.954	6.41	0.40	22.00	-93.0	8/4	42
1435	1.0	6.93	1.932	4.96	0.34	21.51	-67.4	"	"
1444	1.4	7.04	1.940	5.20	0.33	21.13	-58.1	"	"
1453	2.0	7.10	1.941	5.31	0.31	20.99	-47.3	"	"
1503	2.5	7.13	1.937	5.42	0.29	20.74	-42.2	"	"
1512	3.0	7.15	1.926	5.29	0.30	20.60	-45.8	"	"
1513	PUMP	OFF							
1514	START	SAMPLE	COLLECTION						
1535	SAMPLE	COMPLETED	: 1 gal	IPEC					

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	4
turbidity meter	2007040293

NOTES AND OBSERVATIONS:

WELL ID: MW 54 - 173

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: cloudy 80's

PROJECT NO: 01.0017869.91
DATE: 7/22/09
SAMPLER(S): M.B.

SAMPLING INTERVAL (depth in ft below top of casing)

170.5 to 182.0

SAMPLING PORT

173

TOTAL VOLUME PURGED: 3.50 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1415	0	PUMP ON							
1425	0.45	6.51	1.672	—	6.30	22.01	-120.1	2/4	42
1434	0.85	6.86	1.674	—	2.30	21.82	-96.7		
1438	1.0	6.91	1.674	—	1.66	21.31	-80.3		
1443	1.3	7.02	1.675	1.41	1.48	21.15	-78.8		
1452	1.75	7.09	1.675	4.50	1.09	20.91	-75.4		
1500	2.0	7.13	1.675	4.72	0.91	20.80	-78.0		
1505	2.3	7.14	1.675	4.45	0.80	20.68	-77.2		
1515	2.9	7.17	1.674	4.35	0.69	20.59	-81.5		
1519	3.05	7.17	1.674	4.81	0.64	20.36	-82.6		
1525	3.30	7.19	1.675	4.40	0.61	20.52	-82.2	↓	↓
1529	START SAMPLE COLLECTION								
1531	SAMPLE COMPLETED - 1 set 3 VOC								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	2
turbidity meter	2007042933

NOTES AND OBSERVATIONS:

WELL ID: MW 54 - 190

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: cloudy 80's

PROJECT NO: 01.0017869.91
DATE: 7/22/08
SAMPLER(S): M.B.

SAMPLING INTERVAL (depth in ft below top of casing)

185.0 to 203.6

SAMPLING PORT

190

TOTAL VOLUME PURGED: 2.95 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1415	0	PUMP ON							
1425	0.25	6.17	1.912	—	11.83	15.13	-28.9	8/4	42
1432	0.75	6.72	1.983	—	7.21	15.31	0.4		
1441	1.0	7.04	2.029	2.90	6.53	15.45	+28.2		
1451	1.3	7.07	2.021	5.87	5.26	15.78	31.7		
1504	1.9	7.08	2.021	4.30	4.80	15.60	35.1		
1516	2.4	7.12	2.021	4.51	4.42	15.39	32.2		
1520	2.7	7.11	2.022	4.70	4.37	15.34	31.9	↓	↓
1522	START SAMPLE								
1550	SAMPLE COMPLETED						IPEC		

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	
turbidity meter	2007042993

NOTES AND OBSERVATIONS:

WELL ID: MW55-24
SAMPLE ID: 007

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 90's, sun

PROJECT NO: 01.0017869.91
DATE: 8/1/08
SAMPLER(S): AA/MD
PUMP DEPTH: 160 ft

WATER QUALITY: DTW: 7.68'

Time	circle one: DTW or ~~GW~~ Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
9:07	8.140								
9:11	Pump on								
938	7.883	7.77	0.910		3.25	28.04	-31.1	<1	
943	7.934	7.80	0.915	9.50	2.67	28.16	-32.7		
949	8.001	7.83	0.918	7.27	2.26	28.68	-38.2		
955	7.905	7.85	0.922	5.61	2.34	29.08	-38.0		
1000	7.958	7.85	0.926	5.20	2.30	29.62	-21.1		
1005	7.968	7.85	0.929	5.00	2.36	28.92	-22.6		
1010	7.975	7.86	0.928	3.71	2.66	29.33	-42.2		
1015	7.950	7.85	0.929	3.00	2.40	29.54	-40.7		
1020	8.022	7.89	0.932	2.91	2.61	29.81	-35.3		
1026	7.939	7.90	0.936	[illegible]	2.70	30.54	-30.2		
1031	7.854	7.91	0.938	1.90	2.69	30.97	-28.7		
1036	7.874	7.89	0.939	1.81	2.68	31.09	-23.7		
1037	start sampling								
1315	end sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
flow meter	2
turbidity meter	2007012544

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

Tracer test sample collected.

WELL ID: MW55-54
SAMPLE ID: 007

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 90's Sun

PROJECT NO: 01.0017869.91
DATE: 8/1/08
SAMPLER(S): AA/MR
PUMP DEPTH: 47.0 ft

WATER QUALITY: DTW: 8.05'

Time	circle one: DTW or ~~GW~~ Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
907	42.721								
911	Pump on								
917	42.670	7.45	1.857	7.33	5.01	21.50	184.1	2.0	
923	42.676	7.42	1.825	5.57	2.84	21.35	170.6		
930	42.678	7.42	1.827	7.48	2.50	21.35	157.4		
936	42.686	7.43	1.824	6.83	2.49	21.56	149.7		
941	42.682	7.43	1.823	5.71	2.38	21.55	144.7		
947	42.692	7.44	1.823	6.77	2.30	21.77	137.2		
952	42.696	7.50	1.825	5.78	2.33	22.07	128.8		
957	42.692	7.47	1.829	5.89	2.36	21.73	122.6		
1002	42.695	7.46	1.825	5.84	2.36	21.62	118.5		
1007	42.693	7.46	1.826	5.42	2.36	21.61	113.1		
1029	start sampling								
1038	end sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
flow meter	3
turbidity meter	20070254

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

Tracer test sample collected
~1.8 gal purged

WELL ID: MW55-35
SAMPLE ID: OD7

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 90's, sun

PROJECT NO: 01.0017869.91
DATE: 8/6/08
SAMPLER(S): AA, MR
PUMP DEPTH: 32.0 ft

WATER QUALITY: 8.17' DTW

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
903	25.533								
911	Pump on								
924	25.464	7.46	0.942	8.18	0.96	25.44	-124.7	0.8	
932	25.485	7.53	0.929	6.74	0.61	26.00	-115.8	1.0	
937	25.492	7.58	0.927	6.49	0.47	25.76	-114.8		
942	25.531	7.62	0.918	7.00	0.52	24.71	-124.5		
948	25.485	7.61	0.908	6.42	0.47	25.50	-129.8	2.0	
953	25.499	7.70	0.904	5.82	0.50	26.74	-107.4		
958	25.451	7.69	0.909	5.45	0.48	26.75	-83.8		
1003	25.458	7.72	0.926	5.88	0.55	24.07	-134.9		
1008	25.502	7.67	0.907	5.82	0.28	23.83	-140.3		
1014	25.476	7.67	0.904	5.75	0.26	23.88	-142.3		
1019	25.474	7.66	0.903	5.31	0.26	24.07	-138.1		
1021	start sampling								
1047	end sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	2
flow meter	1
turbidity meter	20070125G

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

Tracer test sample collected.
~0.85 gal purged

WELL ID: MW 60 - 35

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 80's

PROJECT NO: 01.0017869.91
DATE: 7/30/08
SAMPLER(S): M.B/A.A.

SAMPLING INTERVAL (depth in ft below top of casing)

24.9 to 39.4

SAMPLING PORT

35

TOTAL VOLUME PURGED: _____ gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1415	0	PUMP ON						5/7	18
1424	0.1	7.06	3.363	—	7.05	19.60	-173.4	5/7	17
1429	0.2	7.11	3.332	0.00	6.85	20.38	-168.2	5/7	18
1435	0.4	7.21	3.347	0.00	6.43	20.89	-153.6	5/7	19
1440	0.55	7.24	3.392	0.00	6.35	20.48	-142.1		
1447	0.80	7.29	3.456	0.00	5.43	20.28	-120.2		
1455	0.90	7.30	3.592	0.00	5.34	20.78	-94.1		
1500	1.0	7.32	3.674	0.00	5.33	20.99	-76.4		
1505	1.05	7.33	3.704	0.00	5.12	21.03	-68.8		
1510	1.15	7.34	3.779	0.00	5.27	20.98	-66.2		
1515	1.25	7.35	3.801	0.00	5.16	21.05	-63.8		
1516	PUMP OFF								
1518	PUMP ON : START COLLECTING SAMPLE								
	SAMPLE COMPLETED : 1 gal IPEC								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	
turbidity meter	200704293

NOTES AND OBSERVATIONS:

WELL ID: MW 60 - 53

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: Sunny 80's

PROJECT NO: 01.0017869.91
DATE: 7/30/08
SAMPLER(S): M.B. / A.A

SAMPLING INTERVAL (depth in ft below top of casing)

45.4 to 59.4

SAMPLING PORT

53

TOTAL VOLUME PURGED: 7.30 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1147	0	PUMP ON						8/8	40
1155	0.8	7.98	3.769	—	15.06	16.06	-3.5		
1204	1.75	7.70	3.675	—	13.43	16.73	2.2		
1214	2.6	7.68	3.675	—	12.52	16.62	-7.9		
1221	3.2	7.65	3.672	8.47	10.19	16.67	-25.0		
1230	4.15	7.63	3.691	0.14	8.11	16.69	-42.5		
1240	5.0	7.62	3.698	0.07	7.00	16.63	-49.5		
1251	6.1	7.58	3.710	0.00	6.64	16.50	-47.2		
1258	6.85	7.53	3.711	0.09	6.49	16.53	-47.0		
1305	7.03	7.51	3.711	0.00	6.33	16.60	-47.9	↓	↓
1304	PUMP OFF								
1314	PUMP ON START SAMPLE COLLECTION								
1323	SAMPLE COMPLETED @ 1320 EST								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	5
turbidity meter	20070429

NOTES AND OBSERVATIONS:

WELL ID: MW 60 - 72

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 80's

PROJECT NO: 01.0017869.91
DATE: 7/30/08
SAMPLER(S): M.B. / A.A

SAMPLING INTERVAL (depth in ft below top of casing)

66.4 to 78.9

SAMPLING PORT

72

TOTAL VOLUME PURGED: 6.45 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1147	0	PUMP	ON					9/8	40
1157	0.75	7.42	3.996	—	0.74	16.69	-70.6		
1205	1.40	7.42	3.905	—	0.57	16.15	-45.2		
1215	2.15	7.42	3.888	—	0.56	15.80	-35.8		
1223	2.90	7.43	3.907	1.49	0.54	15.69	-42.3		
1232	3.70	7.46	3.881	9.08	0.50	15.63	-31.3		
1240	4.30	7.44	3.873	5.22	0.49	15.61	-30.1		
1252	5.20	7.45	3.870	1.89	0.44	15.56	-32.4		
1259	5.90	7.46	3.873	1.95	0.43	15.54	-33.5		
1304	6.20	7.46	3.867	1.78	0.41	15.59	-35.9		
1305	PUMP OFF								
1314	PUMP ON STREET SAMPLE COLLECTION								
1325	SAMPLE COMPLETED - left I.P.E.C								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
turbidity meter	20074293

NOTES AND OBSERVATIONS:

WELL ID: MW 60 - 135

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: Sunny 80's

PROJECT NO: 01.0017869.91
DATE: 7/30/08
SAMPLER(S): M B/A A

SAMPLING INTERVAL (depth in ft below top of casing)

124.9 to 141.4

SAMPLING PORT

135

TOTAL VOLUME PURGED: 40 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1147	0	PUMP ON						8/8	40
1157	0.5	7.19	2.184	--	0.56	17.38	-164.7		
1207	1.0	7.22	2.219	--	0.33	16.72	-168.8		
1215	1.79	7.26	2.229	--	0.32	16.39	-167.7		
1223	2.0	7.26	2.233	1.33	0.29	16.35	-160.3		
1229	2.5	7.26	2.237	1.25	0.28	16.24	-154.6		
1243	3.0	7.30	2.249	0.00	0.27	16.13	-149.1		
1249	3.4	7.26	2.259	0.00	0.26	16.07	-149.4		
1258	3.75	7.27	2.273	0.00	0.25	16.08	-144.2	↓	↓
1254	PUMP OFF								
1314	PUMP ON	STABLE	SAMPLE COLLECTED						
1333	SAMPLE COMPLETED: 1gal IPEC								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
turbidity meter	20070293

NOTES AND OBSERVATIONS:

WELL ID: MW 60 - 154

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 80's

PROJECT NO: 01.0017869.01
DATE: 7/30/08
SAMPLER(S): M.B / A.A

SAMPLING INTERVAL (depth in ft below top of casing)

147.4 to 164.9

SAMPLING PORT

154

TOTAL VOLUME PURGED: 3.50 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1147	0	PUMP ON						8/8	40
1159	0.75	7.29	1.429	—	8.39	17.40	-135.0		
1208	1.0	7.33	1.414	—	8.21	16.92	-124.3		
1216	1.5	7.27	1.414	—	8.18	16.89	-114.1		
1225	1.8	7.27	1.419	11.61	8.16	16.82	-111.7		
1234	2.15	7.27	1.422	3.34	8.16	16.47	-107.3		
1243	2.50	7.27	1.422	0.55	8.16	16.38	-102.9		
1248	3.0	7.27	1.423	0.31	8.17	16.33	-100.5		
1255	3.25	7.27	1.423	0.00	8.18	16.42	-99.8	↓	↓
1256	PUMP OFF								
1314	PUMP ON START SAMPLE COLLECTION								
1335	SAMPLE COMPLETED - I&R IPEC								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	2
turbidity meter	20070429 3

NOTES AND OBSERVATIONS:

WELL ID: MW 60-176

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 80's

PROJECT NO: 01.0017869.91
DATE: 7/30/08
SAMPLER(S): M.B / A.A

SAMPLING INTERVAL (depth in ft below top of casing)

170.9 to 200.4

SAMPLING PORT

176

TOTAL VOLUME PURGED: 1.40 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1147	0	PUMP ON						8/8	40
1201	0.15	7.14	0.789	—	0.30	21.07	-234.1	↓	↓
1210	0.25	7.03	0.791	—	0.24	20.45	-208.0		
1217	0.40	7.01	0.787	—	0.20	19.96	-192.0		
1225	0.70	6.98	0.784	3.41	0.19	20.01	-181.6		
1235	0.80	6.97	0.790	0.00	0.18	19.63	-179.8		
1245	1.0	6.93	0.786	0.00	0.17	19.67	-172.9		
1255	1.15	6.89	0.784	0.00	0.15	19.49	-170.2		
1257	PUMP OFF								
1314	PUMP ON & START SAMPLE COLLECTION								
1408	SAMPLE COMPLETED				1 gal	IPEC			

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
turbidity meter	2007104293

NOTES AND OBSERVATIONS:

WELL ID: MW-62-18
SAMPLE ID:

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 80's, cloudy

PROJECT NO: 01.0017869.91
DATE: 8/6/08
SAMPLER(S): MB/AA
PUMP DEPTH: _____ ft

WATER QUALITY: DTW = 11.91'

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
855	4.677								
856	Pump on								
915	4.529	7.63	3.033	63.24	0.94	25.34	-147.1	1	
920	4.498	7.69	3.063	29.45	0.58	24.80	-159.6		
926	4.470	7.71	3.057	17.44	0.40	24.82	-154.5	0.5	
934	4.410	7.71	3.061	9.06	0.42	25.11	-136.3	0.3	
940	4.374	7.72	3.065	8.05	0.49	25.33	-128.6		
946	4.346	7.72	3.068	8.22	0.42	25.42	-149.3		
951	4.309	7.69	3.066	8.72	0.41	25.72	-153.3		
957	4.273	7.69	3.083	7.98	0.45	25.90	-149.0		
1003	Start sampling - 40cc's								
1009	start sampling - 1 gal								1
1015	end sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
flow meter	1
turbidity meter	20070493

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

0.5 gal purged

1. Tide is coming back in during sampling.

WELL ID: MW-62.37
SAMPLE ID:

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 80's, Cloudy

PROJECT NO: 01.0017869.91
DATE: 8/6/08
SAMPLER(S): MB/AA
PUMP DEPTH: _____ ft

WATER QUALITY: 11.74' DTW

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
850	13.675								
856	Pump on								
916	13.494	7.56	1.299	12.47	1.73	24.39	-125.7	1	
921	13.504	7.60	1.321	8.52	0.96	23.70	-134.8		
926	13.473	7.61	1.313	8.56	0.76	24.03	-115.8	0.5	
933	13.469	7.63	1.327	5.48	0.63	24.40	-104.5	0.3	
941	13.450	7.64	1.307	7.43	0.72	24.66	-84.2		
947	13.438	7.65	1.328	9.22	0.67	25.02	-91.5		
952	13.415	7.65	1.328	5.73	0.62	25.28	-89.0		
958	13.408	7.66	1.333	5.99	0.73	25.38	-59.3		
1004	13.389	7.67	1.333	6.21	0.73	25.44	-24.3		
1009	13.388	7.67	1.334	5.22	0.72	25.53	-20.7		
1014	13.381	7.67	1.334	5.38	0.69	25.67	-19.8		
1020	13.385	7.68	1.334	4.89	0.90	26.01	-28.2		
1025	13.381	7.67	1.335	5.00	0.98	26.18	-38.4		
1030	13.388	7.67	1.336	4.56	0.99	26.27	-36.1		
1034	start sampling								1
DO	end sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
flow meter	2
turbidity meter	20070493

NOTES AND OBSERVATIONS:
Depth and Depth to Water (DTW) measurements are given in feet from top of casing.
Groundwater Elevation measurements are given in feet msl.

~0.4 gal purged.

1. Tide is coming back in during sampling.

WELL ID: MW62-53

SAMPLE ID: 005

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: cloudy, 80's

PROJECT NO
DATE: 8/6/08
SAMPLER(S): AA / MB

SAMPLING INTERVAL (depth in ft below top of casing)

49.6 to 54.1

SAMPLING PORT

53

TOTAL VOLUME PURGED: 1.05 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
0940	0	PUMP ON							
0946	0.1	7.10	1.298	—	0.54	22.41	-99.5	5/6	24
0953	0.15	7.14	1.301	—	0.55	22.76	-88.2		
0959	0.20	7.17	1.312	—	0.50	22.56	-86.2		
1004	0.25	7.18	1.312	11.11	0.44	22.38	-84.7		
1012	0.40	7.19	1.307	8.52	0.40	22.43	-76.8		
1019	0.50	7.20	1.306	8.45	0.40	22.61	-75.0		
1025	0.55	7.21	1.308	5.03	0.40	22.50	-75.5		
1032	0.70	7.22	1.306	5.90	0.37	22.44	-75.2		
1040	0.80	7.23	1.305	3.30	0.36	22.25	-74.3		
1045	0.85	7.24	1.306	4.00	0.38	22.20	-70.3		
1051	0.90	725	1.303	3.63	0.38	22.60	-69.9		
1052		START SAMPLE COLLECTION							
		SAMPLE COMPLETED: 1 gal				IPEC			
1235		PUMP OFF			3-40 ml VOA's - VOC's				

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
turbidity meter	200701254

NOTES AND OBSERVATIONS:

WELL ID: MW 62-71

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: cloudy 80's

PROJECT NO: 01.0017969.91
DATE: 8/6/08
SAMPLER:S: MB/AA

SAMPLING INTERVAL (depth in ft below top of casing)

61.1 to 82.6

SAMPLING PORT

71

TOTAL VOLUME PURGED: 3.45 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
0940	0	PUMP ON							
0948	0.1	7.22	1.223	—	0.31	21.33	130.4	5/6	24
0954	0.35	7.26	1.221	—	0.22	20.84	-124.7	↓	↓
1000	0.75	7.26	1.220	—	0.18	20.42	-130.9		
1005	0.85	7.26	1.219	10.77	0.16	19.89	-120.1		
1013	1.10	7.27	1.217	5.18	0.16	19.76	-113.2		
1020	1.30	7.26	1.214	4.43	0.16	19.64	-111.3		
1025	1.70	7.27	1.215	1.38	0.17	19.45	-111.2		
1033	1.85	7.26	1.213	1.07	0.18	19.26	-108.8		
1040	2.10	7.26	1.213	0.84	0.20	19.19	-104.3		
1047	2.30	7.27	1.211	0.78	0.21	19.15	-109.1		
1100	3.0	7.28	1.217	0.51	0.27	19.09	-105.3		
1106	3.2	7.28	1.216	0.53	0.26	19.13	-106.8	↓	↓
1110	3.3	7.29	1.217	0.49	0.26	19.10	-108.0		
1142		START SAMPLE COLLECTION							
1142		SAMPLE COMPLETED : 1 gal IPEC							
1142		PUMP OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	2
turbidity meter	20070254

NOTES AND OBSERVATIONS:

WELL ID: MW-92

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: cloudy 80's

PROJECT NO: 01.0017869.91
DATE: 8/6/08
SAMPLER(S): MB/AA

SAMPLING INTERVAL (depth in ft below top of casing)

88.6 to 99.1

SAMPLING PORT

92

TOTAL VOLUME PURGED: 2.95 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
0940	0	PUMP ON							
0951	0.15	7.13	1.261	—	1.88	21.85	-166.4	5/6	24
0955	0.30	7.13	1.259	—	1.52	21.30	-170.3		
1000	0.45	7.15	1.258	—	1.21	21.04	-174.2		
1006	0.75	7.17	1.257	4.55	1.09	20.51	-178.8		
1015	1.0	7.19	1.258	4.60	0.96	20.34	-160.1		
1022	1.15	7.20	1.259	5.01	0.89	20.16	-150.9		
1028	1.30	7.21	1.261	1.36	0.84	19.86	-156.2		
1035	1.65	7.22	1.260	0.94	0.79	19.75	-154.9		
1041	1.80	7.23	1.262	0.00	0.77	19.69	-148.6		
1047	2.0	7.24	1.263	0.00	0.74	19.66	-144.8		
1101	2.4	7.25	1.267	0	0.62	19.59	-142.3		
1107	2.5	7.25	1.267	0	0.62	19.67	-145.7		
1115	2.8	7.28	1.270	0	0.60	19.58	-149.2		
1115	~~end sampling~~ START SAMPLE COLLECTION								
1149		SAMPLE COMPLETE : 1 gal IPEC							
1149		PUMP OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	4
turbidity meter	20070125 4

NOTES AND OBSERVATIONS:

WELL ID: MW 62 - 138

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy IPEC
SITE: Buchanan, NY
WEATHER: cloudy 80's

PROJECT NO: 01.0017869.91
DATE: 8/6/08
SAMPLER(S): M.B / A.A

SAMPLING INTERVAL (depth in ft below top of casing)
126.1 to 143.6

SAMPLING PORT
138

TOTAL VOLUME PURGED: 1.40 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
0940	0	PUMP ON							
0952	0.1	7.56	1.440	—	10.53	24.20	-116.6	5/6	24
0957	0.15	7.44	1.479	—	9.97	23.90	-99.1		
1001	0.20	7.38	1.484	—	9.62	23.77	-94.3		
1008	0.40	7.36	1.476	4.36	8.80	23.39	-82.8		
1015	0.75	7.36	1.481	4.27	8.10	23.08	-76.4		
1023	0.85	7.37	1.477	1.53	7.30	22.99	-76.1		
1029	0.95	7.39	1.479	0.70	6.30	22.76	-78.4		
1036	1.05	7.40	1.472	0.00	6.00	22.70	-79.3		
1042	1.10	7.41	1.477	0.00	5.62	22.44	-76.9		
1048	1.25	7.42	1.472	0.00	5.80	22.58	-78.7		
1048	~~Grot Sampling~~ START SAMPLE COLLECTION								
1141		SAMPLE COMPLETED : 1 gal IPEC							
1141		PUMP OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	5
turbidity meter	200701254

NOTES AND OBSERVATIONS:

WELL ID: MW 62-182

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: cloudy 80's

PROJECT NO: 01.0017869.01
DATE: 8/6/08
SAMPLER(S): MB/AA

SAMPLING INTERVAL (depth in ft below top of casing)
177.6 to 198.7

SAMPLING PORT
182

TOTAL VOLUME PURGED: 1.55 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1250	0	Pump on							
1256	0.05	7.20	1.279	4.57	0.38	21.39	-158.7	6/4.3	40
1302	0.20	7.47	1.272	3.88	0.19	20.91	-167.5		
1307	0.45	7.39	1.266	0.00	0.19	20.79	-140.0		
1316	0.90	7.32	1.262	0.10	0.17	20.67	-128.4		
1321	1.10	7.31	1.261	0.00	0.18	20.74	-130.1		
1325	1.25	7.31	1.260	0.00	0.17	20.82	-129.8		
	1.40	7.31	1.260	0.00	0.17	20.89	-129.4	↓	↓
	START SAMPLE COLLECTION								
1354	SAMPLE COMPLETED : 1 gal. IPEC								
	PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
turbidity meter	200704293

NOTES AND OBSERVATIONS:

WELL ID: MW03-18
SAMPLE ID: 006

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 88° Sunny

PROJECT NO: 01.0017869.91
DATE: 7/30/08
SAMPLER(S): AA/MB
PUMP DEPTH: 14.9 ft

WATER QUALITY: ~~6.037~~ 11.42'

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
847	~~6.037~~ 11.42'								
858	Pump on								
916	6.229	7.10	2.136	29.71	1.65	24.34	-112.2	<1	(1)
921	6.258	7.14	2.030	27.40	1.65	24.27	-98.8		
926	6.289	7.18	2.032		1.71	24.87	-99.5		
931	6.314	7.20	2.037		1.79	25.38	-93.0		
937	6.345	7.21	2.035		1.58	26.18	-88.9		
945	6.406	7.22	2.007	13.17	1.78	27.78	-82.1		
951	6.422	7.23	2.023	15.75	1.58	28.12	-77.2		
957	6.454	7.24	2.022		1.77	28.23	-67.7		
1002	6.485	7.23	2.016	19.53	1.76	28.58	-60.8		
1007	6.493	7.25	2.008	19.70	1.74	29.03	-60.2	1.5	(2)
1012	6.503	7.40	1.963	18.98	2.25	26.60	-68.2		
1019	6.525	7.46	1.794	11.04	2.27	25.81	-99.5		
1024	6.525	7.46	1.815	7.90	2.69	25.74	-99.5		
1029	6.536	7.49	1.813	7.16	3.77	25.56	-98.3		
1034	6.541	7.48	1.814	10.06	3.61	25.73	-97.0		
1039	6.529	7.50	1801	9.51	3.76	25.69	-98.5		
1044	6.529	7.51	1.793	9.17	3.82	25.45	-97.4		
1045	Start Sampling								1.3 gal purged
1113	end sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	2
flow meter	1
turbidity meter	2B710254

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

1. Pumping as slow as possible, but water level is decreasing.
2. Historically, this well has a high K value. The tide is low & ~~decr~~ water level is decreasing therefore pumping rate was increased.

WELL ID: MW63-34
SAMPLE ID: 006

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 80's F, sun

PROJECT NO: 01.0017869.91
DATE: 7/30/08
SAMPLER(S): AA/MB
PUMP DEPTH: 31.5 ft

WATER QUALITY: 11.43

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
848	14.793								
858	Pump on							2	
918	14.990	7.16	1.394	16.47	3.50	21.17	-130.7	1.1	
922	15.027	7.23	1.391	7.74	1.62	21.97	-133.9	<1	(1)
927	15.051	7.32	1.392		0.91	22.61	-135.7		
932	15.079	7.38	1.394		0.77	23.31	-142.5		
937	15.111	7.41	1.395		0.80	24.17	-142.5		
945	15.159	7.43	1.399	22.02	0.97	25.44	-146.0		
952	15.189	7.42	1.402		1.03	25.99	-137.2		
958	15.219	7.42	1.403	19.09	1.27	26.36	-138.3		
1003	15.238	7.41	1.401	10.93	1.33	26.78	-134.8		
1007	15.241	7.42	1.399	12.73	1.44	27.39	-131.4	1.5	(2)
1013	15.250	7.44	1.452	13.52	1.73	23.85	-150.5		
1020	15.269	7.42	1.416	16.74	1.60	23.02	-151.7		
1025	15.278	7.41	1.413	6.99	1.62	23.25	-152.2		
1030	15.284	7.44	1.406	7.72	1.59	23.50	-156.9		
1035	15.288	7.42	1.401	7.31	1.50	23.62	-154.0		
1037	start sampling								0.9 gal purged
1112	end sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
flow meter	3
turbidity meter	20070254

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

1. Pumping as slow as possible, but waterlevel is decreasing.
2. Historically, this well has a high K Value. Low flow, water level is decreasing therefore pumping rate was increased.

WELL ID: MW 63 - 50

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 80's

PROJECT NO: 01.0017869.91
DATE: 7/30/08
SAMPLER(S): M.B/A.A

SAMPLING INTERVAL (depth in ft below top of casing)

41.5 to 58.0

SAMPLING PORT

50

TOTAL VOLUME PURGED: 2.75 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
0905	0	PUMP ON							
0912	0.1	7.31	1.187	-	2.78	20.38	-102.4	8/8	28
0918	0.4	7.53	1.178	8.67	0.80	20.52	-123.6		
0923	0.75	7.56	1.177	2.21	0.62	20.59	-126.4		
0930	1.0	7.62	1.182	2.19	0.47	20.72	-128.1		
0940	1.4	7.66	1.183	3.99	0.53	20.67	-130.6		
0946	1.8	7.69	1.182	3.39	0.46	20.45	-133.8		
0951	2.0	7.68	1.182	4.92	0.45	20.29	-134.2		
0955	2.1	7.65	1.182	3.43	0.44	20.23	-133.6		
0959	2.2	7.65	1.182	3.21	0.42	20.16	-132.3		
1004	2.5	7.64	1.182	3.52	0.40	20.11	-130.5		
1005	PUMP OFF								
1006	PUMP ON START SAMPLE COLLECTION								
1029	SAMPLE COMPLETED : 1 qa2 2 DEC								
1030	PUMP OFF				0				

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
turbidity meter	20070125 4

NOTES AND OBSERVATIONS:

WELL ID: MW 63 - 93

SAMPLE ID: 007

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

5

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 90°

PROJECT NO: 01.0017869.91
DATE: 7/29/08
SAMPLER(S): MS/A.A.

SAMPLING INTERVAL (depth in ft below top of casing)

81.5 to 100.5

SAMPLING PORT

93

TOTAL VOLUME PURGED: 4.25 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1159	0	PUMP	ON					8/8	30
1206	0.1	7.27	1.037	—	0.38	21.57	-154.7		
1216	0.75	7.32	1.018	—	0.18	20.21	-132.1		
1227	1.1	7.35	0.995	10.69	0.18	19.72	-110.5		
1237	1.75	7.32	0.984	3.33	0.18	19.47	-98.6		
1247	2.1	7.30	0.977	0.31	0.21	19.34	-78.1		
1257	2.6	7.31	0.973	2.93	0.20	19.55	-73.9		
1304	3.0	7.30	0.974	0.90	0.21	19.24	-72.6		
1311	3.4	7.30	0.972	0	0.21	19.14	-68.9		
1317	3.6	7.30	0.972	0	0.20	19.33	-68.0		
1324	4.0	7.31	0.973	0	0.21	19.42	-69.3		
1329	Start Sampling								
1417	SAMPLE CONPLETED			1 BOX IPEC					
1419	PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	5
turbidity meter	20070254

NOTES AND OBSERVATIONS:

WELL ID: MW 63-112

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

4

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 90°

PROJECT NO: 01.0017869.91
DATE: 7/29/08
SAMPLER(S): M.S. A.A.

SAMPLING INTERVAL (depth in ft below top of casing)

106.5 to 112.0

SAMPLING PORT

112

TOTAL VOLUME PURGED: 4.0 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1159	0	PUMP	ON					8/8	30
1208	0.15	7.54	1.200	—	0.45	21.50	-190.1		
1217	0.25	7.50	1.217	—	0.23	20.91	-141.7		
1227	1.0	7.48	1.275	4.41	0.19	19.92	-150.4		
1238	1.5	7.47	1.267	2.85	0.15	19.76	-150.1		
1248	1.9	7.48	1.259	1.27	0.17	19.54	-145.8		
1258	2.3	7.49	1.254	0	0.15	19.73	-146.8		
1304	2.5	7.48	1.253	7.89	0.18	19.51	-147.5		
1311	2.8	7.48	1.261	0.11	0.19	19.38	-145.6		
1317	3.0	7.51	1.251	5.79	0.15	19.64	-148.1		
1325	3.3	7.52	1.252	0.87	0.20	19.62	-148.2		
1332	3.6	7.51	1.259	0.33	0.18	19.62	-146.9		
1347	start	sampling							
1420	SAMPLE COMPLETED : lab EPEC								
1421	PUMP	OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
turbidity meter	20070284

NOTES AND OBSERVATIONS:

WELL ID: MW 63 - 121

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: Sunny 90°

PROJECT NO: 01.0017869.91
DATE: 7/29/08
SAMPLER(S): M.B / A.A

SAMPLING INTERVAL (depth in ft below top of casing)

118 to 127.5

SAMPLING PORT

121

TOTAL VOLUME PURGED: 3.1 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1159	0	PUMP ON						8/8	30
1259	0.1	7.32	1.797	—	0.36	22.96	-151.2		
1218	0.4	7.22	1.800	—	0.29	21.80	-144.8		
1228	0.8	7.20	1.797	5.02	0.33	21.42	-140.9		
1238	1.0	7.20	1.787	1.32	0.26	21.11	-144.3		
1248	1.2	7.20	1.781	1.26	0.20	20.91	-146.1		
1258	1.55	7.22	1.376	2.11	0.20	21.16	-148.2		
1308	1.7	7.21	1.371	0.88	0.19	20.82	-149.3		
1312	2.0	7.21	1.367	3.09	0.18	20.73	-149.5		
1318	2.0	7.23	1.364	3.61	0.19	20.96	-151.4		
1326	2.4	7.24	1.357	0.58	0.17	20.93	-149.3		
1333	2.6	7.23	1.349	0.53	0.18	20.94	-149.4		
1338	2.8	7.24	1.349	0.56	0.18	21.36	-151.6		
1343	Start sampling								
1430	SAMPLE COMPLETED								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	2
turbidity meter	2007981354

NOTES AND OBSERVATIONS:

WELL ID: MW 63 - 174

SAMPLE ID: 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 90°

PROJECT NO: 01.0017869.91
DATE: 7/29/08
SAMPLER(S): MS/AA

SAMPLING INTERVAL (depth in ft below top of casing)

168.0 to 191.1

SAMPLING PORT

174

TOTAL VOLUME PURGED: 2.6 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1159	0	PUMP ON						8/8	30
1212	0.1	7.55	0.947	—	0.53	22.29	-199.6		
1220	0.3	7.28	0.936	—	0.49	22.36	-147.8		
1230	0.75	7.22	0.940	1.97	0.43	21.99	-120.1		
1240	0.9	7.21	0.951	1.39	0.37	21.78	-108.0		
1250	1.1	7.21	0.964	4.57	0.33	21.57	-105.0		
1300	1.4	7.22	0.976	0.42	0.31	21.79	-95.4		
1306	1.65	7.21	0.978	2.20	0.29	21.77	-100.5		
1313	1.75	7.21	0.966	1.05	0.27	21.56	-99.1		
1320	1.85	7.23	0.965	0.55	0.26	22.08	-95.3		
1327	2.15	7.22	0.967	0.55	0.23	22.11	-96.7		
1335	2.3	7.23	0.965	0.51	0.23	22.12	-89.9		
1340	2.5	7.25	0.967	0.52	0.22	22.53	-87.6		
1347	Start purging								
1440	SAMPLE COMPLETED : 1 pail IPEC								
1441	PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
turbidity meter	20070254

NOTES AND OBSERVATIONS:

WELL ID: MW-66-21
SAMPLE ID: 005

Pg 1 of 2

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 90°

PROJECT NO: 01.0017869.91
DATE: 7/29/08
SAMPLER(S): MS / AA
PUMP DEPTH: 14.1 ft

WATER QUALITY: 1149

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
0847	8.958								
0939	8.998	Pump on							
916	9.017	6.92	4.018		0.33	20.97	-159.9		0.0
921	9.035	6.90	4.036	16.94	0.33	20.67	-181.3		0.25
926	9.081	6.91	4.011	15.52	0.38	21.23	-175.4		
931	8.973	6.92	3.967	16.82	0.43	22.87	-179.7		
938	9.052	6.94	3.943	17.36	0.44	22.63	-182.9		
944	9.081	6.96	3.927	21.06	0.30	24.10	-165.5		
953	8.976	6.97	3.884	20.01	0.36	24.44	-185.3		0.45
959	8.938	6.99	3.863	23.37	0.45	25.30	-168.6		
1005	8.974	7.00	3.841	24.90	0.46	26.62	-156.0		
1011	8.873	7.00	3.814	20.67	0.54	24.27	-142.3		
1016	8.853	7.01	3.790	22.42	0.46	27.52	-134.8		①
1021	8.883	7.01	3.775	22.49	0.46	28.27	-120.2		
1033	8.894	7.02	3.716	18.54	0.52	29.21	-84.3		
1038	8.768	7.01	3.720	18.76	0.45	29.05	-80.1		
1046	8.759	7.01	3.692	18.29	0.46	29.27	-76.7		0.55

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
flow meter	2
turbidity meter	2004W12-54

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

1. Pumping at 300ml/min flow rate until water level stabilizing.
2. Switch to modified traditional purge.

SAMPLE ID: MW66-21
DUP
Pg 2 of 2

GZA GeoEnvironmental of New York
Modified Traditional Purge
Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 90's, Sun

PROJECT NO. 01.0017869.91
DATE: 7/29/08
SAMPLER(S): ABT MB

WATER COLUMN HEIGHT (ft)

21 (DTB) - 11.49 (DTW) = 9.51 (Well Column Height) ft

Well Diameter: 2 inches

Diameter	Multipliers
1	0.041
2	0.163
4	0.653

GALLONS OF WATER PER WELL VOLUME:

Water Column Height 9.51 ~~1.55~~ x 0.163 (Multiplier) = 1.55 (Well Volume) gallons

1.55 x 1.5 = 2.33 (Designed Purge Volume) gallons

TOTAL VOLUME PURGED: 2.5 gal

WATER QUALITY:

Time	Volume Purged (gal)	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Pump Depth (ft)	Notes
1104	0.65	8.567	7.00	3.621	17.60	0.60	20.22	-61.6		
1112	1.0	8.494	6.95	3.456	12.62	0.30	19.94	-118.5		
1117	1.6	8.449	6.92	3.432	12.16	0.20	19.58	-131.4		
1121		8.417	6.91	3.366	8.37	0.40	20.29	-133.1		
1124	2.5	Pump off								
1125		Start sampling								
1148		End sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
turbidity meter	20870i254

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

MW-66-21

WELL ID: MW-66-36
SAMPLE ID: 0225

Pg 1 of 2

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 90°

PROJECT NO: 01.0017869.91
DATE: 7/29/08
SAMPLER(S): MB/AA
PUMP DEPTH: 33.6 ft

WATER QUALITY: STW-1104

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
0900	15.208								Initial
0909	14.897	Pump on							
917	14.876	7.46	3.384		0.80	19.55	-143.8		
922	14.939	7.52	3.421	8.74	0.56	19.38	-139.3		(1)
927	14.963	7.56	3.435	5.85	0.70	20.65	-138.4		
934	14.943	7.58	3.432	4.72	0.58	21.59	-131.8		
939	14.923	7.57	3.437	6.97	0.54	22.16	-129.9		
944	14.935	7.57	3.427	5.23	0.71	23.18	-134.0		
953	14.895	7.56	3.427	6.26	0.72	24.62	-135.4		0.4
959	14.876	7.55	3.429	9.28	1.07	26.04	-129.4		
1005	14.856	7.52	3.423	8.46	1.18	27.03	-127.5		
1012	14.890	7.51	3.421	10.26	1.28	28.05	-127.2		
1019	14.820	7.51	3.424	12.91	1.33	28.67	-125.2		
1022	14.891	7.49	3.418	10.53	1.43	29.01	-123.6		
1033	14.753	7.48	3.419	10.12	1.16	30.18	-116.2		
1039	14.791	7.48	3.416	10.78	1.25	30.28	-109.9		
1047	14.684	7.43	3.366	12.49	1.16	30.28	-119.7		0.6 (2)

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
flow meter	1
turbidity meter	09F301254

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

1. Pumping as slow as possible, but water level decreasing.
2. Switch to modified traditional purge

WELL ID: MW-66-36
SAMPLE ID: DUP

pg 2 of 2

GZA GeoEnvironmental of New York
Modified Traditional Purge
Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 90's, Sun

PROJECT NO: 01.0017869.91
DATE: 7/29/08
SAMPLER(S): AM MS

WATER COLUMN HEIGHT (ft)

36 (DTB) − 11.04 (DTW) = 24.96 ft (Well Column Height)

Well Diameter: 1 inches

Diameter	Multipliers
1	0.041
2	0.163
4	0.653

GALLONS OF WATER PER WELL VOLUME:

Water Column Height 24.96 x 0.041 (Multiplier) = 1.02 gallons (Well Volume)

1.02 x 1.5 = 1.53 gallons (Designed Purge Volume)

TOTAL VOLUME PURGED: 1.6 gal

WATER QUALITY:

Time	Volume Purged (gal)	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Pump Depth (ft)	Notes
1104	0.6	14.435	7.42	3.351	13.84	0.41	36.17	-102.8		
1113	0.8	14.215	7.31	3.419	6.92	0.36	18.86	-138.1		
1117	1.1	14.180	7.16	3.457	5.96	0.16	18.58	-135.8		
1121	1.4	14.155	7.18	3.462	7.72	0.16	18.57	-136.9		
1122	1.6	Pump off								
1125		Start Sampling								
1205		End Sampling								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
turbidity meter	2007E1254

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

MW-66-36

WELL ID: MW 67 - 39

SAMPLE ID: 005

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

7

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 36A, 30's °F

PROJECT NO: 01.0017869.91
DATE: 7/28/08
SAMPLER(S): MB/MP

SAMPLING INTERVAL (depth in ft below top of casing)

38.8 to 54.3

SAMPLING PORT

39

TOTAL VOLUME PURGED: 3.25 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1143	Pump on								
1146	0.2	7.10	2.971	—	0.73	19.79	-261.4	8/8	24
1152	0.75	7.50	3.163	3.07	0.50	19.57	-284.7		
1158	1.0	7.65	3.166	0.01	0.42	19.55	-314.0		
1203	1.3	7.70	3.178	0.00	0.38	19.70	-319.8		
1208	1.75	7.71	3.188	0.00	0.39	19.63	-319.0		
1210	PUMP	OFF							
1225	PUMP	ON							
1227	1.9	7.76	3.189	0.00	0.36	20.52	-308.1		
1232	2.15	7.76	3.186	0.00	0.32	19.95	-313.0		
1239	2.75	7.75	3.194	0.00	0.31	20.20	-317.7		
1245	3.0	7.76	3.205	0.00	0.31	20.13	-312.0		
1246	PUMP	OFF							
1320	START	SAMPLE COLLECTION							
1407	SAMPLE	COMPLETED		1 gal	IPEC				
				1/2 gal	NRC				
	PUMP	OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
turbidity meter	

NOTES AND OBSERVATIONS:

WELL ID: MW 17 - 13S

SAMPLE ID: 035

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

6

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: Sun 80's F

PROJECT NO: 01.0017869.91
DATE: 7/28/08
SAMPLER(S): J-S/BB

SAMPLING INTERVAL (depth in ft below top of casing)

93.3 to 113.3

SAMPLING PORT

105

TOTAL VOLUME PURGED: 2.15 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
11.33	Pump on								
1145	0	6.89	1.521	—	0.96	20.49	-129.9	8/8	24
1151	0.2	7.08	1.514	1.01	0.37	20.29	-206.6		
1157	0.5	7.19	1.509	1.15	0.21	20.23	-242.3		
1202	0.8	7.21	1.513	0.42	0.25	20.18	-258.2		
1207	0.9	7.24	1.518	0.00	0.20	20.09	-270.9		
1210	PUMP OFF								
1225	PUMP ON								
1226	1.1	7.37	1.532	0.00	0.21	22.00	-287.8		
1231	1.35	7.36	1.514	0.00	0.15	20.97	-273.4		
1238	1.70	7.35	1.518	0.00	0.16	21.02	-275.1		
1244	1.90	7.35	1.520	0.00	0.17	21.07	-279.8		
1245	PUMP OFF								
1320	START SAMPLE COLLECTION								
1425	SAMPLE COMPLETED			1 gal	IPEC				
				1/2 gal	NRC				
1425	PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	/
turbidity meter	

NOTES AND OBSERVATIONS:

WELL ID: MW 67 - 173

SAMPLE ID: DUP5

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

S

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: SUNNY, 90's°F

PROJECT NO: 01.0017869.91
DATE: 7/28/08
SAMPLER(S): MSL/BR

SAMPLING INTERVAL (depth in ft below top of casing)

164.8 to 188.3

SAMPLING PORT

173

TOTAL VOLUME PURGED: 2.30 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1123	Pump on								
1143	0	5.89	1.284	—	11.36	21.08	27.9	9/8	24
1148	0.05	5.57	1.273	5.06	3.24	20.17	-9.7		
1155	0.15	5.99	1.268	1.03	1.61	19.92	-134.4		
1200	0.35	6.26	1.266	0.20	1.42	19.89	-141.3		
1205	0.50	6.40	1.264	0.00	1.11	19.95	-163.8		
1210	PUMP	OFF							
1225	PUMP	ON							
1225	0.75	6.50	1.274	0.00	0.72	22.30	-219.8		
1230	0.85	6.52	1.277	0.00	0.70	20.78	-222.6		
1237	1.0	6.52	1.266	0.00	0.56	20.63	-240.8		
1243	1.15	6.53	1.266	0.00	0.55	20.61	-264.2		
1248	1.30	6.54	1.266	0.00	0.54	20.41	-283.1		
1253	1.40	6.54	1.265	0.00	0.53	20.34	-279.3		
1258	1.60	6.55	1.263	0.00	0.54	20.70	-258.1		
1303	1.75	6.56	1.264	0.00	0.47	20.80	-244.8		
1307	1.90	6.57	1.261	0.00	0.48	20.98	-236.5		
1312	2.05	6.57	1.260	0.00	0.46	21.08	-208.4		
1313	PUMP	OFF							
1320	START	SAMPLE COLLECTION							
1442	SAMPLE	COMPLETED	1 gal		IPEC				
				½ gal	MSL				

1442 PUMP OFF

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	4
turbidity meter	

NOTES AND OBSERVATIONS: Take a field test duplicate sample this round.

DUPLICATE 1 @ 1250 7/28/08

WELL ID: MW 67 - 209

SAMPLE ID: 005

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: SUN, 83s °F

PROJECT NO: 01.0017869.91
DATE: 7/22/08
SAMPLER(S): MB, JGB

SAMPLING INTERVAL (depth in ft below top of casing)

209 to 224.8'

SAMPLING PORT

2-09

TOTAL VOLUME PURGED: 3.0 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
0857	0	PUMP	ON						
904	0.25	6.72	1.072		3.74	18.57	-72.2	8/8	50
909	0.85	6.88	1.073	2.65	2.36	18.49	-108.0		
915	1.65	6.95	1.075	2.61	1.77	18.38	-105.7		
922	0.75	7.00	1.077	0.73	1.52	18.21	-108.4		
936	1.00	7.03	1.074	0.00	1.31	18.06	-109.1		
943	1.50	7.05	1.070	0.00	1.01	17.96	-112.1		
947	1.75	7.06	1.067	0	0.90	17.94	-117.8		
951	2.1	7.07	1.066	0	0.78	17.98	-118.4		
956	2.5	7.06	1.066	0	0.77	18.14	-124.0		
1001	2.75	7.06	1.066	0	0.71	18.09	-123.0		
1011	Start Sample up								
1100	SAMPLE COMPLETED			1.9	2 IPEC				
				1/2	2 MEC				
1100	PUMP OFF				0				

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	4
turbidity meter	2020284095

NOTES AND OBSERVATIONS:

WELL ID: MW 67-276

SAMPLE ID: 0905

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: Clear, 85's F

PROJECT NO: 01.0017869.91
DATE: 7/28/09
SAMPLER(S): MB/MK

SAMPLING INTERVAL (depth in ft below top of casing)

250.8 to 281.3

SAMPLING PORT

276

TOTAL VOLUME PURGED: 2.8 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
857	0	PUMP	ON						
903	0.15	6.97	0.934		0.50	19.19	-123.0	6/6	50
909	0.35	7.11	0.939	5.34	0.44	18.91	-151.6		
914	0.5	7.15	0.946	2.46	0.40	19.12	-152.2		
921	0.6	7.16	0.947	1.31	0.53	19.66	-150.4		
935	1.0	7.19	0.948	0.14	0.24	18.51	-148.8		
943	1.3	7.19	0.942	0.00	0.28	18.32	-148.7		
947	1.6	7.18	0.940	0	0.23	18.31	-147.8		
951	2.0	7.18	0.938	0	0.21	18.32	-149.9		
956	2.3	7.20	0.935	0	0.19	18.57	-152.5		
1001	2.55	7.21	0.937	0	0.19	18.50	-151.9		
1011	start	sampling							
1109	SAMPLE COMPLETED			1 gal	IPEC				
				1/2 gal	MKE				
1109	PUMP	OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
turbidity meter	10070-4-238

NOTES AND OBSERVATIONS:

WELL ID: MW 67 - 323

SAMPLE ID: 065

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: SUN, 80's °F

PROJECT NO: 01.0017869.91
DATE: 7/28/08
SAMPLER(S): [illegible]

SAMPLING INTERVAL (depth in ft below top of casing)

317.8 to 328.3

SAMPLING PORT

323

TOTAL VOLUME PURGED: 3.3 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
857	0	PUMP	ON						
902	0.1	6.73	0.846		11.44	19.89	-148.8	5/5	52
908	0.25	6.77	0.862	6.44	0.50	19.32	-158.9		
914	0.3	6.86	0.845	4.01	0.41	19.63	-202.2		
920	0.33	7.01	0.824	5.32	0.47	20.01	-262.4		
930	0.45	7.02	0.796	1.84	0.47	19.32	-282.5		
940	0.80	7.01	0.784	0.00	0.48	19.41	-278.8		
946	2.0	7.03	0.781	0	0.44	18.72	-292.1		
950	2.3	7.04	0.777	0	0.40	18.78	-275.0		
955	2.5	7.06	0.773	0	0.35	19.05	-279.7		
1000	2.7	7.07	0.773	0	0.33	19.01	-285.3		
1006	3.0	7.06	0.771	0	0.32	19.01	-276.0		
1111	Start Sampling								
1125	SAMPLE COMPLETED: 1 gal IPEC								
					1/2 gal	NRC			
1125	PUMP	OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	5
turbidity meter	20810442-2

NOTES AND OBSERVATIONS:

WELL ID: MW 67-340

SAMPLE ID: 005

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: SUNNY 80's F

PROJECT NO: 01.0017869.91
DATE: 7/28/05
SAMPLER(S): EG/BB

SAMPLING INTERVAL (depth in ft below top of casing)

335.3 to 347.9

SAMPLING PORT

340

TOTAL VOLUME PURGED: 3.0 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
857	0	PUMP ON							
901	0.1	6.95	0.846		3.40	19.90	-209.2	8/8	52
907	0.25	6.87	0.846	99.13	0.48	19.05	-235.3		
913	0.35	7.39	0.834	2.80	0.32	19.31	-241.9		
920	0.45	7.46	0.827	2.35	0.26	19.72	-248.4		
930	0.60	7.44	0.825	0.62	0.26	19.19	-315.6		
940	0.80	7.28	0.821	0.00	0.27	18.66	-293.2		
946	2.1	7.30	0.822	0.00	0.21	18.55	-297.6		
953	2.3	7.30	0.826	0	0.20	18.49	-285.4		
955	3.0	7.30	0.828	0	0.19	18.80	-296.7		
1011	STOP	STOP PUMP							
1118	SAMPLE COMPLETED: 1 gal IPEC								
					½ gal MEC				
1118	PUMP	OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
turbidity meter	2607H293

NOTES AND OBSERVATIONS:

WELL ID: MW-11
SAMPLE ID: 027

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 90°F

PROJECT NO: 01.0017869.91
DATE: 9/4/08
SAMPLER(S): M.B.
PUMP DEPTH: 16.5 ft

WATER QUALITY:

Time	circle one (DTW) or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
1225	8.79	PUMP ON							
1230	9.07	7.07	0.783	—	3.62	23.01	-81.7	0.75	
1235	9.14	6.95	0.785	—	2.22	23.28	-82.8		
1240	9.19	6.98	0.787	7.22	0.99	23.62	-80.3		
1245	9.14	6.93	0.798	4.59	0.84	24.01	-77.6		
1250	9.11	7.08	0.807	5.21	0.74	24.48	-63.5		
1255	9.11	7.14	0.812	7.21	0.71	25.16	-57.0		
1300	9.12	7.07	0.813	5.52	0.71	25.75	-57.1		
1305	9.11	7.08	0.814	5.19	0.73	25.88	-60.0		
1311	9.10	7.09	0.814	5.61	0.71	26.12	-57.8		
1313	START SAMPLE COLLECTION								
1400	SAMPLE COMPLETED : 1 gal. IPEC								
1400	PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
flow meter	K1
turbidity meter	20070429 3

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

WELL ID: MW-11
SAMPLE ID: 021

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: rain 80's

PROJECT NO: 01.0017869.91
DATE: 7/23/08
SAMPLER(S): M. B.
PUMP DEPTH: _____ ft

WATER QUALITY: DTW 3.92

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
0945	3.133								
0950	PUMP ON								
0955	3.120	7.45	1.315	---	4.10	26.88	107.6	1.5	
1000	3.119	7.52	1.331	---	1.60	26.87	58.5	"	0.15
1006	3.125	7.53	1.335	---	1.22	26.92	-1.9	"	0.35
1013	3.111	7.53	1.336	0.53	0.60	26.97	-18.3	"	0.75
1020	3.113	7.54	1.336	0.21	0.55	27.04	-40.1	"	0.85
1024	3.109	7.54	1.336	0.27	0.53	27.06	-17.8	"	0.95
1027	3.116	7.54	1.336	0.00	0.43	27.07	-14.9	"	1.0
1031	3.106	7.54	1.336	0.00	0.34	27.08	-14.0	"	1.1
1034	3.110	7.54	1.336	0.00	0.32	27.08	-15.1	"	1.15
1037	3.115	7.54	1.336	0.00	0.30	27.09	-14.4	"	1.20
1040	3.108	7.54	1.336	0.00	0.30	27.10	-15.3	↓	1.25
1041	START SAMPLE COLLECTION								
1116	SAMPLE COMPLETED: 1 gal JP8C								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	2
flow meter	
turbidity meter	20070 4293

NOTES AND OBSERVATIONS:
Depth and Depth to Water (DTW) measurements are given in feet from top of casing.
Groundwater Elevation measurements are given in feet msl.

WELL ID: U3-T2
SAMPLE ID: 026

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: Varies 80's

PROJECT NO: 01.0017869.91
DATE: 7/23/08
SAMPLER(S): M.B.
PUMP DEPTH: _____ ft

WATER QUALITY: DTW 4.23

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
1150	2.836								
1155		PUMP ON							
1203	2.815	7.63	1.394	4.78	2.96	30.83	-125.8		0.05
1209	2.815	7.68	1.389	3.15	3.07	30.66	-126.2		0.10
1213	2.828	7.70	1.383	4.29	2.90	30.64	-135.4		0.15
1218	2.830	7.74	1.380	4.38	2.60	30.66	-129.1		0.20
1223	2.834	7.79	1.383	2.15	2.03	30.86	-144.3		0.25
1228	2.834	7.80	1.381	4.02	1.69	31.02	-131.2		0.30
1233	2.850	7.82	1.378	0.76	1.30	31.44	-125.8		0.45
1238	2.851	7.85	1.381	0.05	0.71	31.85	-157.6		0.70
1242	2.851	7.85	1.377	0.00	0.67	32.20	-149.8		0.80
1245	2.851	7.84	1.380	0.00	0.64	32.18	-152.9		0.90
1248	2.820	7.85	1.381	0.00	0.62	32.10	-151.2		0.95
1252	2.820	7.85	1.382	0.00	0.59	32.18	-153.9		1.0
1254	START	SAMPLE COLLECTION							
1340	SAMPLE COMPLETED								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
flow meter	
turbidity meter	20070429 3

NOTES AND OBSERVATIONS:
Depth and Depth to Water (DTW) measurements are given in feet from top of casing.
Groundwater Elevation measurements are given in feet msl.

WELL ID: MW-40
SAMPLE ID: DUP

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 80's F, Sun

PROJECT NO: 01.0017869.91
DATE: 7/28/08
SAMPLER(S): AMM
PUMP DEPTH: 25.6 ft

WATER QUALITY: DTW = 9.607'

Time	circle one. DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
1226	50.01								
1228	Pump on								(1)
1232	49.893	8.80	2.348	27.76	1.67	32.32	118.9	1.75	
1237	49.742	9.08	2.341	14.18	0.61	32.22	122.6		
1243	49.583	9.17	2.302	12.75	0.42	32.41	109.9		0.15(2)

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
flow meter	20070135H
turbidity meter	

NOTES AND OBSERVATIONS:
Depth and Depth to Water (DTW) measurements are given in feet from top of casing.
Groundwater Elevation measurements are given in feet msl.
(1) Pumping as slow as possible, but water level is dropping (water level was dropping prior to sampling)
(2) changed to modified traditional purge technique

WELL ID: GZ-7D
SAMPLE ID: 017

GZA GeoEnvironmental of New York
Modified Traditional Purge
Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: 80's Sun

PROJECT NO: 01.0017869.91
DATE: 7/28/18
SAMPLER(S): BD/MB

WATER COLUMN HEIGHT (ft)

27.25 (DTB) − 9.67 (DTW) = 17.62 ft (Well Column Height)

Well Diameter: 3 inches

Diameter	Multipliers
1	0.041
2	0.163
4	0.653

GALLONS OF WATER PER WELL VOLUME:

Water Column Height 17.62 x .367 (Multiplier) = 6.46 gallons (Well Volume)

6.46 x 1.5 = 9.68 gallons (Designed Purge Volume)

TOTAL VOLUME PURGED: 10 gal

WATER QUALITY:

Time	Volume Purged (gal)	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Pump Depth (ft)	Notes
1246	0.2	49.295	9.28	2.291	8.07	0.36	32.98	104.7	25.6	
1251	1.0	48.471	9.29	2.270	8.38	0.13	33.38	91.6		
1256	1.7	47.291	9.27	2.279	8.15	0.10	34.15	82.1		
1301	2.4	46.266	9.24	2.285	7.61	0.09	34.47	79.0		
1306	3.2	44.957	9.23	2.290	12.64	0.12	34.81	64.6		
1311	4.0	43.450	9.22	2.294	6.43	0.12	34.93	55.3		
1316	4.7	42.339	9.21	2.294	5.14	0.12	35.00	57.0		
1322	5.5	40.863	9.21	2.295	6.27	0.12	34.99	47.7		
1327	6.2	39.550	9.21	2.295	6.11	0.14	34.98	40.7		
1333	7.1	37.855	9.21	2.294	5.78	0.19	34.88	42.6		
1339	7.8	36.493	9.21	2.293	5.97	0.24	34.90	43.9		
1346	8.7	34.748	9.20	2.290	9.81	0.31	34.79	32.0		2
1458	Pump off									
1503	9.5	34.928	9.04	2.207	9.72	0.35	33.25	92.8		
1507	Pump on									2
1552	Start Sample									
1600	Pump off									

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
turbidity meter	20170454

1600 restart pump
1616 finish sample

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

(2) Pump off, allowing well to recharge.

APPENDIX E: PRE-Q3 2008 MID-QUARTER SAMPLING DATA SHEETS

WELL ID: MW 40-127

SAMPLE ID: (006)

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Energy - IPEC
SITE: Buchanan, NY
WEATHER: Sunny 70's

2

PROJECT NO: 01.0017869.91
DATE: 5/30/08
SAMPLER(S): Miguel Bruno

SAMPLING INTERVAL (depth in ft below top of casing)

125.2 to 136.7

SAMPLING PORT

100

TOTAL VOLUME PURGED: 1.0 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1126	0	PUMP ON							
1130	0.01	6.22	2.193	—	13.01	18.00	-136	5/5	35
1134	0.05	6.36	2.189	—	6.32	17.75	-166.0	5/5	35
1140	0.1	6.62	2.192	—	3.54	17.44	-196.7	5/5	40
1145	0.25	6.79	2.198	1.84	2.52	17.12	-191.9	↓	↓
1151	0.35	6.85	2.191	0.00	1.99	17.13	-200.8	↓	↓
1155	0.50	6.88	2.191	0.00	1.68	17.09	-201.2	↓	↓
1200	0.65	6.88	2.182	0.00	1.67	16.99	-203.4	↓	↓
1205	0.75	6.90	2.180	0.00	1.59	17.05	-203.2	↓	↓
1205		PUMP OFF							
1206		START SAMPLE COLLECTION							
1300		SAMPLE COMPLETED: 1gal IPEC							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	# 4
turbidity meter	20070293

NOTES AND OBSERVATIONS:

WELL ID: MW 40 - 100

SAMPLE ID: (006)

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: Sunny 70's

3

PROJECT NO: 01.0017869.91
DATE: 5/30/08
SAMPLER(S): Miguel Br. Tas

SAMPLING INTERVAL (depth in ft below top of casing)

93.2 to 106.7

SAMPLING PORT

127

TOTAL VOLUME PURGED: _____ gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1126	0	PUMP ON							
1130	0.5	8.29	2.456	—	19.2	10.23	-139.7	5/5	35
1133	0.8	8.59	2.336	—	13.1	11.38	-93.6	5/5	35
1140	0.8	8.48	2.332	—	20.03	11.11	-53.3	5/5	40
1146	1.0	8.66	2.321	17.63	20.45	11.16	-36.8		
1151	1.25	8.86	2.312	17.62	19.57	11.11	-13.0		
1156	1.60	8.69	2.316	17.62	19.38	11.06	-2.7		
1200	1.80	8.14	2.305	20.79	19.01	11.24	10.3		
1207	2.0	8.03	2.287	22.44	11.73	11.54	28.7		
1215	2.7	8.28	2.279	19.25	10.31	11.58	31.9		
1218	2.3	8.30	2.276	13.98	10.83	11.62	33.2		
1222	2.95	8.34	2.277	19.05	9.28	11.60	35.0	↓	↓
1222		PUMP OFF							
1223		START SAMPLE COLLECTION							
1245		SAMPLE COMPLETED			Lab	IPEC			

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	# 5
turbidity meter	20670423

NOTES AND OBSERVATIONS:

WELL ID: MW 51 - 40

SAMPLE ID: (907)

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 70's

PROJECT NO: 01.0017869.01
DATE: 5/30/08
SAMPLER(S): M. Gucci, B. Tos

SAMPLING INTERVAL (depth in ft below top of casing)
29.7 to 44.2

SAMPLING PORT
40

TOTAL VOLUME PURGED: 2.7 gal

PURGE RATE: variable gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
0900	0	PUMP ON							
0905	0.1	6.68	2.147	—	7.02	13.31	-30.6	5/5	23
0911	0.3	6.73	2.149	—	6.30	13.21	-20.9	↓	↓
0916	0.5	6.79	2.148	—	5.88	13.16	1.1		
0921	0.8	6.81	2.146	0.23	5.66	13.19	31.0		
0928	1.0	6.80	2.148	0.00	5.62	13.28	51.9		
0936	1.4	6.81	2.153	0.00	5.72	13.40	69.9		
0946	1.8	6.81	2.159	0.70	5.72	13.49	83.4		
0953	2.1	6.81	2.165	0.00	5.81	13.55	87.2		
0957	2.3	6.81	2.167	0.00	5.82	13.56	90.1		
1001	2.45	6.81	2.171	0.01	5.84	13.58	91.4	↓	↓
1002		PUMP OFF							
1023		PUMP ON START SAMPLE COLLECTION							
1027		SAMPLE COMPLETED ; 1 gal IPEC							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	#2
turbidity meter	20070429

NOTES AND OBSERVATIONS:

WELL ID: MW 51 - 79

SAMPLE ID: (007)

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 70's

PROJECT NO: 01.0017869.91
DATE: 5/30/08
SAMPLER(S): Miguel Brito

SAMPLING INTERVAL (depth in ft below top of casing)

63.2 to 81.2

SAMPLING PORT

79

TOTAL VOLUME PURGED: 2.05 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
0900	0	PUMP	ON						
0910	0.05	6.65	2.507	—	3.94	13.96	-156.5	5/5	23
0915	0.15	6.79	2.485	—	4.13	13.74	-124.7	↓	↓
0922	0.25	6.90	2.465	7.84	4.11	13.75	-111.0		
0929	0.50	6.95	2.440	7.15	3.97	13.85	-80.1		
0939	0.80	6.96	2.439	6.92	3.97	13.76	-71.2		
0945	0.95	6.97	2.442	6.43	3.91	13.85	-69.3		
0951	1.10	6.99	2.447	5.39	3.90	13.92	-70.7		
0956	1.25	6.99	2.451	4.16	3.94	13.89	-70.4		
1000	1.30	7.00	2.454	2.01	3.94	13.92	-70.4		
1007	1.70	6.99	2.464	1.90	3.88	14.08	-66.2		
1010	1.75	7.00	2.459	1.96	3.91	14.11	-64.9		
1014	1.80	7.01	2.456	1.99	3.89	14.17	-65.2	↓	↓
1014		PUMP OFF							
1015		PUMP ON	START	SAMPLE	COLLECTION				
1055		SAMPLE	COMPLETED:	1 gal	IPEC				

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	# 3
turbidity meter	2C07042493

NOTES AND OBSERVATIONS:

WELL ID: MW-42-49
SAMPLE ID: 010

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: Sunny, windy 70°F

PROJECT NO: 01.0017869.91
DATE: 5/13/08
SAMPLER(S): M. Barrow
PUMP DEPTH: 41.0 ft

WATER QUALITY: 3495

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
1132	13.263	PUMP ON							
1135		PUMP ON							
12:50		PUMP ON							
12:02		PUMP ON							
12:10		PUMP ON							1
12:25	13.566	8.02	1.284	—	8.26	17.37	153.5		
12:30	13.569	8.02	1.288	12.10	9.20	17.51	147.6		2
12:31		PUMP OFF							3

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
flow meter	6
turbidity meter	2009T0125

NOTES AND OBSERVATIONS:
Depth and Depth to Water (DTW) measurements are given in feet from top of casing.
Groundwater Elevation measurements are given in feet msl.

1 - Remove 20' section of tubing to submersible pump. Connect pump to pump and purge.
2 - Submersible pump turned on and off
3 - Change low flow sampling methods to modified traditional

SAMPLE ID: _____

GZA GeoEnvironmental of New York
Modified Traditional Purge
Sampling Data Sheet

Mw-42-49(015)

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny, windy 70's

PROJECT NO. 01.0017869.91
DATE: 5/13/15
SAMPLER(S): M. Bittner

WATER COLUMN HEIGHT (ft)

49 (DTB) − 34.75 (DTW) = 14.75 (Well Column Height) ft

Well Diameter: 2 inches

Diameter	Multipliers
1	0.041
2	0.163
4	0.653

GALLONS OF WATER PER WELL VOLUME:

Water Column Height 14.75 x 0.163 (Multiplier) = 2.38 gallons (Well Volume)

2.38 x 1.5 = 3.41 gallons (Designed Purge Volume)

TOTAL VOLUME PURGED: 3.95 gal

WATER QUALITY:

Time	Volume Purged (gal)	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Pump Depth (ft)	Notes
1255	0.4	34.75	7.01	0.71						
1259	1.0		7.15	1.264	1.623	1.39	14.64	104.1	46.0	
1300	1.5	—	7.12	1.234	24.89	1.09	14.65	96.5		
1304	1.8	—	7.08	1.200	23.38	1.11	14.46	96.1		
1305	2.0	—	7.04	1.207	22.25	1.25	14.67	99.8		
1308	2.3	—	8.20	1.208	22.15	1.29	14.63	101.2		
1310	2.9	—	7.95	1.21	24.81	1.20	14.69	99.6		
1312	3.2	1.335	7.91	1.211	24.29	1.27	14.65	95.4		
1314		SAMPLE	SAMPLE	SAMPLE	COLLECTED					
1320		SAMPLE	COMPLETE							
1330		PUMP	OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	2
turbidity meter	2109 10 1125 11

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

SAMPLE ID:_____

GZA GeoEnvironmental of New York MW-50-66 (D15)

Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: cloudy / windy 50°F

PROJECT NO: 01.0017869.91
DATE: 5/12/08
SAMPLER(S): M. Britos
PUMP DEPTH: 60 ft

WATER QUALITY: DTW-9.82

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
1054	87.67								
1110	82.91		PUMP ON						
1112	82.64	7.40	2.528	--	1.22	8.37	10.2	0.45	
1123	82.62	7.45	2.521		10.53	10.32	-24.0		0.05
1131	82.45	7.43	2.532	2.60	7.25	8.20	5.1		0.05
1132	82.32	7.43	2.589	6.01	5.12	12.94	5.7		0.05
1140	82.42	7.32	2.613	6.18	4.52	12.91	12.1		0.08
1145	82.36	7.42	2.632	6.11	4.64	12.20	56.2		0.05
1150	82.44	7.34	2.638	6.07	4.49	12.22	32.2		0.10
1152	82.29	7.35	2.632	6.11	4.46	12.31	54.9		0.15
1157	82.28	7.35	2.626	6.20	4.50	12.28	51.2		0.10
1158		START SAMPLING							
1210		SAMPLING COMPLETED							
		PUMP OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	5
flow meter	K1
turbidity meter	[illegible]

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

WELL ID: MW-58 120
SAMPLE ID: 0908

GZA GeoEnvironmental of New York
Modified Traditional Purge
Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny, windy 29°F

PROJECT NO: 01.0017869.91
DATE: 5/13/08
SAMPLER(S): M. Gallas

WATER COLUMN HEIGHT (ft)

120.5 (DTB) - .5937 (DTW) = 60.63 ft (Well Column Height)

Well Diameter: _____ inches

Diameter	Multipliers
1	0.041
2	0.163
4	0.653

GALLONS OF WATER PER WELL VOLUME:

Water Column Height 60.63 x 0.041 (Multiplier) = 2.48 gallons (Well Volume)

2.48 x 1.5 = 3.72 gallons (Designed Purge Volume)

TOTAL VOLUME PURGED: 3.36 gal

WATER QUALITY:

Time	Volume Purged (gal)	circle one: (DTW) or GW Elevation	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Pump Depth (ft)	Notes
0850	0	DTW	6.8							
0900	0.1		7.07	1.530		1.38	12.16	161.3	105	
0902	0.4		7.06	1.530	66.76	3.31	15.10	166.7		
0904	0.8		7.01	1.549	126.1	2.93	15.43	165.3		
0906	1.12		7.06	1.563	840.4	3.33	15.67	164.2		
0908	1.35		7.06	1.606	>1000	2.29	15.91	160.3		
0910	1.80		7.04	1.617		2.02	15.95	156.5		
0912	2.0		7.07	1.611		2.1	15.80	146.1		
0914	2.4		7.08	1.653		1.74	15.41	143.7		
0916	2.8		7.09	1.657		1.57	15.91	139.8		
0918	3.1		7.08	1.649		1.50	16.10	137.5		
0920	3.7		7.08	1.645		1.43	16.25	134.1		
0925		DTW	SAMPLE COLLECTED							
0930		SAMPLE	COMPLETE							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	4
turbidity meter	20070502541

NOTES AND OBSERVATIONS:
Depth and Depth to Water (DTW) measurements are given in feet from top of casing.
Groundwater Elevation measurements are given in feet msl.

WELL ID: MW-107
SAMPLE ID: (007)

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny / 70's

PROJECT NO: 01.0017869.91
DATE: 5/30/08
SAMPLER(S): Michael Sr. T
PUMP DEPTH: 38 ft

WATER QUALITY:

Time	circle one (DTW) or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Purged H2O (gal) Notes
1400	26.02	PUMP ON							
1407	26.02	5.89	0.941	—	6.94	17.69	217.1	1.5	0.05
1414	26.01	5.91	0.944	7.00	8.10	16.55	195.0		0.15
1420	26.02	5.89	0.924	5.25	5.56	16.44	187.4		0.30
1422	26.02	6.16	0.930	3.90	5.29	16.26	166.2		0.70
1432	26.02	6.22	0.930	3.59	4.94	16.53	159.0		0.80
1436	26.02	6.26	0932	3.74	5.00	16.82	155.9		0.85
1439	26.02	6.29	0934	3.81	5.11	16.77	155.2	↓	0.90
1440		START SAMPLE COLLECTION							
1525		SAMPLE COMPLETED		1 gal. 2PEC					
1525		PUMP OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	7
flow meter	K
turbidity meter	20070429

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

For connections (leak test). Use peristaltic pump for low flow. Did not use submersible pump.

WELL ID: _____
SAMPLE ID: _____

GZA GeoEnvironmental of New York UICSS (007)
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: [illegible]

PROJECT NO: 01.0017869.91
DATE: 5/12/16
SAMPLER(S): [illegible]
PUMP DEPTH: 14 ft

WATER QUALITY: DTW - 7.57

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Notes
0900	10.175	PUMP ON							
0910	9.38-9	8.29	2.02		7.69	15.37	[illegible]		
0915	8.[illegible]21	8.12	2.044		8.42	9.46	52.2		0 [illegible]
0920	9.332	8.14	2.056		8.49	9.33	[illegible]		
0925		PUMP OFF							
0935	9.031	PUMP ON						0.25	
0945	8.949	8.18	2.050		[illegible]	19.41	32.[illegible]		2.40
0955	8.933	8.19	2.049	9.28	11.25	19.54	37.[illegible]		
0955	8.958	8.19	2.048	10.36	12.23	19.61	38.0	L	0.45
1000	8.962	8.19	2.047	4.39	12.98	19.66	39.2		
1005	8.958	8.19	2.045	4.35	13.08	19.60	37.3		
1010	8.970	8.21	2.044	4.78	13.14	19.60	36.2	L	0.50
1010		STOP SAMPLES COLLECT							
1405		SAMPLE COMPLETED							
		PUMP OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	[illegible]
flow meter	K1
turbidity meter	[illegible]

NOTES AND OBSERVATIONS:
Depth and Depth to Water (DTW) measurements are given in feet from top of casing.
Groundwater Elevation measurements are given in feet msl.

APPENDIX F: POST-Q3 2008 MID-QUARTER SAMPLING DATA SHEETS

WELL ID MW-30 69

SAMPLE ID 021

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan NY
WEATHER: partly cloudy 85° F

PROJECT NO: 01.0017869.91
DATE: 4/3/08
SAMPLER(S): M.B.

SAMPLING INTERVAL (depth in ft below top of casing)

67.3 to 71.3

SAMPLING PORT

69

TOTAL VOLUME PURGED: _____ gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1030	0							6/7	45
1040	0.25	8.30	1.025	—	7.97	20.01	126.4		
1050	0.40	8.28	1.017	—	7.66	19.83	101.8		
1055	0.50	8.23	0.982	—	7.29	17.54	97.3		
1100	0.30	8.17	1.004	—	7.70	19.46	93.6		
1105	1.0	8.21	1.012	—	7.69	19.39	89.3		
1106	PUMP OFF								
1110	START SAMPLE COLLECTION								
1129	SAMPLE COMPLETED 1 1/2 gal to DEC								
1130	PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 556 Sonde	6
turbidity meter	

NOTES AND OBSERVATIONS:

WELL ID: MW 30 84

SAMPLE ID: 012

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy IPEC
SITE: Buchanan, NY
WEATHER: p.cloudy 85°F

PROJECT NO: 01.0012869.01
DATE: 9/3/08
SAMPLER(S): M.S.

SAMPLING INTERVAL (depth in ft below top of casing)
27.3 to 85.4

SAMPLING PORT
84

TOTAL VOLUME PURGED: _____ gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1033	0.00							6/7	45
1040	0.1	7.31	1.613	—	1.88	27.62	10.3		
1050	0.15	7.24	1.613	—	1.58	23.94	8.7		
1055	0.25	7.25	1.618	—	1.54	23.92	18.9		
1100	0.35	7.26	1.619	—	1.50	23.89	18.9		
1110	0.55	7.27	1.622	—	1.52	23.18	21.1		
1111	PUMP OFF								
1114	START SAMPLE COLLECTION								
1154	SAMPLE COMPLETED: 1 gal					clear			
1159	PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
turbidity meter	

NOTES AND OBSERVATIONS:

WELL ID: MW 31 - 49

SAMPLE ID: 031

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: cloudy, drizzle 40's

PROJECT NO: 01.0032869.91
DATE: 2/30/08
SAMPLER(S): MB

SAMPLING INTERVAL (depth in ft below top of casing)
34.8 to 49.3

SAMPLING PORT
42

TOTAL VOLUME PURGED: 2.95 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1025	0	PUMP	OFF						
1028		PUMP	OFF						
1043	0	PUMP	ON					6/4	32
1048	0.5	6.86	1.124	—	—	14.98	51.0	6/4	34
1053	0.5	6.79	1.180	—	4.28	14.46	48.1	6/4	34
1058	0.5	6.77	1.151	—	3.98	14.42	49.1	6/4	34
1103	1.0	6.76	1.161	1.27	3.89	14.27	53.1		
1108	1.0	6.75	1.164	1.11	3.88	14.23	53.1		
1113	1.0	6.75	1.164	2.36	3.88	14.26	54.6		
1118	1.0	6.75	1.169	1.95	3.86	14.25	54.1		
1123	2.0	6.76	1.155	1.23	3.92	14.20	53.6		
1128	2.0	6.76	1.157	0.00	3.90	14.21	54.1		
1133	2.5	6.76	1.161	0.00	3.87	14.22	55.7		
1138	2.5	6.76	1.163	0.00	3.86	14.18	55.7	↓	↓
1143		PUMP	OFF						
1147		STOP	SAMPLE COLLECTED						
1153		SAMPLE	PUMP TUBE						
1156		PUMP	OFF						

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	4
turbidity meter	20070429

NOTES AND OBSERVATIONS:

WELL ID: MW 31 - 63

SAMPLE ID: 0911

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: cloudy, drizzle 20°F

PROJECT NO: 01.0021869.01
DATE: 5/30/2013
SAMPLER(S): M B

SAMPLING INTERVAL (depth in ft below top of casing)

553 to 633

SAMPLING PORT

3

TOTAL VOLUME PURGED: 155 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1025	0	PUMP	1061					6/6	24
1030	0.35	7.08	1.037		10.40	14.81	70.2		
1041		PUMP	OFF						
1045		PUMP	ON						27
1048	0.40	7.10	1.031		8.79	13.75	61.2	6/6	29
1053	0.85	7.15	1.035		8.76	13.61	59.2	6/6	29
1058	0.98	7.11	1.013		8.72	13.54	58.2	6/6	28
1103	2.20	7.10	1.034	4.04	8.20	13.50	57.5		
1108	2.70	7.12	1.001	6.10	8.03	13.39	56.9		
1113	2.90	7.12	1.015	5.84	3.68	13.39	56.4		
1118	3.40	7.08	1.030	4.02	3.54	13.54	56.1		
1123	3.90	7.06	1.062	1.04	2.70	20.60	50.5		
1128	4.25	7.08	1.078	2.39	3.63	20.66	48.2		
1133	4.70	7.08	1.081	2.52	3.63	20.66	48.2		
1138	5.10	7.06	1.081	2.52	3.63	20.66	48.2		
1143	5.55	7.05	1.093	0.00	2.57	20.68	37.1		
1148	6.00	7.05	1.100	0.00	2.56	20.69	36.4		
1153	6.50	7.05	1.103	0.00	2.56	20.70	28.3	↓	↓
1200		PUMP OFF							
1210		START SAMPLE	COLLECT	FROM					
1214		SAMPLE COLLECTED							
1225		PUMP OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 556 Sonde	2
turbidity meter	2009T0423413

NOTES AND OBSERVATIONS:

WELL ID MW 31 25

SAMPLE ID: 031

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy IPEC
SITE: Buchanan, NY
WEATHER: [illegible] 90°F

PROJECT NO: 01.0017859.91
DATE: 2/30/07
SAMPLER(S): M.G.

SAMPLING INTERVAL (depth in ft below top of casing)

89.8 to 95.4

SAMPLING PORT

2C

TOTAL VOLUME PURGED: 1.65 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1015	0	Pump	241					5/5	28
1018	0.15	7.02	1553	—	2.65	10.24	-33.0		
1019	0.30	7.02	1553	—	2.29	10.24	-33.6	6/5	23
1021	0.50	7.03	1553	—	2.06	10.46	-33.6	6/5	27
1023	0.70	7.04	1553	—	1.80	10.55	-33.8	6/5	29
1025	0.90	7.04	1553	—	1.70	10.61	-33.8		
1028	1.10	7.03	1554	2.33	1.62	10.70	-34.0		
1030	1.30	7.04	1554	1.01	1.53	10.77	-34.2		
1032	1.50	7.04	1554	1.14	1.42	10.83	-34.3		
1034	1.70	7.03	1554	0.84	1.33	10.81	-34.1		
1035	1.90	7.03	1554	0.901	1.30	10.85	-34.3		
1036	1.90	7.03	1554	0.000	1.17	10.79	-34.0		
1042	1.90	7.02	1554	0.000	1.09	10.80	-34.1		
1043	1.90	7.03	1554	0.000	1.07	10.80	-34.3	5	4
1129	PUMP OFF								
1145	START SAMPLE COLLECTION								
1208	SAMPLE COMPLETE								
1209	PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 556 Sonde	[illegible]
turbidity meter	2007T0343

NOTES AND OBSERVATIONS:

WELL ID: MW 32 . 59

SAMPLE ID 006

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 80's

PROJECT NO: 01.0012869.918
DATE: 9/2/08
SAMPLER(S): M.B.

SAMPLING INTERVAL (depth in ft below top of casing)

28.3 to 61.3

SAMPLING PORT

59

TOTAL VOLUME PURGED: 1.1 gal

PURGE RATE: Variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1230	0	PUMP ON						8/2	28
1240	0.01	6.37	0.218	—	2.10	22.86	-100.1	2/7	27
1245	0.05	6.52	0.209	—	1.94	22.48	-129.8		
1250	0.1	6.62	0.206	—	1.79	22.12	-133.4		
1255	0.15	6.75	0.199	—	0.70	22.00	-153.3		
1300	0.20	7.03	0.194	1.52	0.39	21.81	-157.9		
1305	0.30	7.30	0.283	1.32	0.34	21.77	-169.3		
1310	0.40	7.45	0.293	1.96	0.40	21.73	-173.7		
1315	0.55	7.47	0.279	0.43	0.36	21.75	-192.4		
1320	0.65	7.59	0.277	0.11	0.32	21.76	-196.7		
1325	0.80	7.63	0.273	0.00	0.34	21.90	-200.3		
1330	0.90	7.65	0.271	0.00	0.33	21.97	-201.3		
1335	1.0	7.66	0.271	0.00	0.31	21.99	-196.8		
1336	PUMP OFF								
1337	SYR	T SAMPLE	FILTERED						
1352	SAMPLE	COMPLETE	TEX	Jal	II	EC			
	PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 556 Sonde	1
turbidity meter	20010423

NOTES AND OBSERVATIONS:

WELL ID: MW 32 85

SAMPLE ID 009

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT Entergy - IPEC
SITE Buchanan, NY
WEATHER Sunny 80°F

PROJECT NO [illegible]
DATE 9/2/08
SAMPLER(S) M B

SAMPLING INTERVAL (depth in ft below top of casing)

79.3 to 92.8

SAMPLING PORT

85

TOTAL VOLUME PURGED: 1.10 gal

PURGE RATE: variable (gal/min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1354	0	PUMP	ON					6/7	48
1359	0.1	6.63	1.304	—	3.00	21.45	-147.2	6/7	47
1404	0.35	6.72	1.317	0.33	2.28	21.34	-120.5	"	"
1410	0.45	6.85	1.350	0.42	1.78	21.40	-110.1	"	"
1415	0.75	6.90	1.368	0.21	1.53	21.41	-99.3	"	"
1420	0.90	6.92	1.380	0.33	1.35	21.43	-94.1	"	"
1425	1.0	6.93	1.382	0.35	1.25	21.45	-93.6	↓	↓
1428	PUMP OFF								
1433	START SAMPLE COLLECTION								
1440	SAMPLE COMPLETED @ 1432 STEC								
	PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 556 Sonde	4
turbidity meter	20070304293

NOTES AND OBSERVATIONS:

WELL ID: MW 32 - 131

SAMPLE ID: _____

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 80's

PROJECT NO: 01.0015864.91
DATE: 8/.108
SAMPLER(S): MA / AB

SAMPLING INTERVAL (depth in ft below top of casing)

125.8 to 139.3

SAMPLING PORT

131

TOTAL VOLUME PURGED: _____ gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal) L	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1023	0	PUMP ON						2/2	20
1026	0							2/2	30
1028	0.1	Water start	s accumulate in sleeve					2/2	15
1029	0.2	Air bubbles evacuated						2/2	15
1030	0.2							2/2	15
1031	0.2							2/2	20
1033	0.2							2/2	22
1035	0.2	Not enough	pressure/water to cycle	ma change				2/2	22
1036	0.2							2/2	23
1038	0.2							2/2	24
1040	0.2							2/2	26
1042	0.2	No change						2/2	26
1043	0.2							2/2	28
1045	0.2							2/2	30
1048	0.2							2/2	32
1050	0.2							2/2	34
1055	0.2							2/2	36
1057	0.2	Some air bubbles	reaching surface					2/2	38
1059	0.2							2/2	40
1101	0.2	"	"	"	"	"		2/2	42
1102	0.2							2/2	44
1103	0.2	"	"	"	"	"		2/2	46

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 556 Sonde	4
turbidity meter	20070293

NOTES AND OBSERVATIONS:

WELL ID: MW-32 173

SAMPLE ID: 005

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 80's

PROJECT NO: [illegible]
DATE: 4/2/09
SAMPLER(S): M B.

2

SAMPLING INTERVAL (depth in ft below top of casing)

165.8 to 174.3

SAMPLING PORT

173

TOTAL VOLUME PURGED: 2.20 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1030	0	PUMP	ON					6/7	60
1035	0.95	6.79	1.717		1.14	21.48	-.2435		
1040	1.20	7.13	1.735	6.08	0.60	20.96	-.2118		
1041	0.70	7.23	1.740	4.90	0.40	20.71	-.2099		
1050	1.0	7.26	1.737	5.01	0.30	20.43	-.1994		
1055	1.15	7.26	1.734	5.98	0.28	20.36	-.1883		
1102	1.35	7.27	1.737	1.32	0.23	20.33	-.1803		
1107	1.50	7.28	1.733	3.32	0.23	20.50	-.1845		
1112	1.65	7.27	1.732	3.04	0.21	20.36	-.1823		
1117	2.10	7.23	1.730	3.09	0.20	20.29	-.1801	↓	↓
1118	PUMP OFF								
1119	START SAMPLE COLLECTION								
1130	SAMPLE COMPLETED: 1/2 gal LPEL								
	PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	1
turbidity meter	20070423

NOTES AND OBSERVATIONS:

WELL ID: MW 32 190

SAMPLE ID: 008

GZA GeoEnvironmental of New York
Waterloo Sampling Data Sheet

CLIENT: Energy - IPEC
SITE: Buchanan NY
WEATHER: sunny 80's

PROJECT NO: (01.0047869.9)
DATE: 9/2/09
SAMPLER(S): M.B.

SAMPLING INTERVAL (depth in ft below top of casing)

180.3 to 193.9

SAMPLING PORT

190

TOTAL VOLUME PURGED: 1.75 gal

PURGE RATE: variable (gal / min)

PURGE METHOD: Double Valve Pump

WATER QUALITY:

Time	Purged Volume (gal)	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (mg/l)	Temp (°C)	ORP	Drive/Vent Cycle (seconds)	Drive Pressure (psi)
1020	0	PUMP ON						6/9	60
1025	0.05	6.41	1.407		3.09	21.88	-154.8		
1035	0.15	6.75	1.440	4.14	2.19	21.36	-207.4		
1041	0.25	6.91	1.434	4.2	1.30	21.19	-188.4		
1050	0.35	7.00	1.460	3.41	1.00	20.38	-167.8		
1055	0.45	7.02	1.460	0.58	0.90	20.89	-173.6		
1100	1.05	7.03	1.457	0.00	0.84	20.82	-172.4		
1107	1.15	7.05	1.459	1.12	0.91	20.77	-169.7		
1112	1.30	7.05	1.465	2.05	0.73	20.78	-169.4		
1120	1.45	7.06	1.460	1.93	0.71	20.74	-153.3		
1128	1.60	7.06	1.472	2.11	0.75	20.75	-160.8	↓	↓
1136	PUMP OFF								
1137	START SAMPLE COLLECTION								
1140	SAMPLE COMPLETED					gsk. IPEC			
	PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	4
turbidity meter	20070402493

NOTES AND OBSERVATIONS:

WELL ID: MW-33
SAMPLE ID: 023

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 90°F

PROJECT NO: 01.0017869.91
DATE: 9/4/08
SAMPLER(S): M. B.
PUMP DEPTH: 16.0 ft

WATER QUALITY: DTW - 8.49

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Purged Notes H2O (gal)
930	16.945	PUMP ON						0.15	
940	16.734	7.19	0.581	~	7.12	22.41	-46.0	0.15	
948	16.733	7.17	0.578	—	4.31	22.60	-47.7	0.20	
955	16.768	7.20	0.579	—	3.07	23.00	-23.2	0.15	
1000	16.778	7.22	0.582	17.70	3.14	23.40	-5.2		0.10
1005	16.794	7.24	0.585	14.49	3.00	23.67	+17.3		
1010	16.804	7.24	0.589	14.12	2.95	23.85	28.1		
1016	16.828	7.24	0.598	15.33	2.98	24.11	35.8		0.20
1023	16.826	7.24	0.606	10.22	3.09	24.46	58.2		
1030	16.816	7.25	0.611	11.13	3.00	24.63	54.9		
1037	16.826	7.24	0.628	11.19	2.84	24.98	64.9		0.25
1046	16.840	7.23	0.644	9.58	2.71	25.30	85.4		
1055	16.863	7.23	0.647	11.79	2.57	25.52	95.9		
1102	16.865	7.23	0.654	14.05	3.05	25.76	103.0		
1113	16.867	7.22	0.659	10.05	3.46	26.18	109.3		0.30
1120	16.868	7.23	0.664	10.20	3.23	26.41	110.9		
1126	16.871	7.23	0.668	10.40	3.12	26.53	111.3	↓	
1128	START SAMPLE COLLECTION								
1441	SAMPLE COMPLETED - 1/2 gal IPEC								
1441	PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	4
flow meter	K1
turbidity meter	20070429 3

NOTES AND OBSERVATIONS:
Depth and Depth to Water (DTW) measurements are given in feet from top of casing.
Groundwater Elevation measurements are given in feet msl.

SAMPLE ID: _____

GZA GeoEnvironmental of New York
Modified Traditional Purge
Sampling Data Sheet

MW-42-49(012)

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: Sunny 80's

PROJECT NO: 01.0015869.91
DATE: 9/5/08
SAMPLER(S): M.B.

WATER COLUMN HEIGHT (ft)

49 (DTB) - 35.30 (DTW) = 13.70 ft (Well Column Height)

Well Diameter: _____ inches

Diameter	Multipliers
1	0.041
2	0.163
4	0.653

GALLONS OF WATER PER WELL VOLUME:

Water Column Height 13.70 x 0.163 (Multiplier) = 2.23 gallons (Well Volume)

2.23 x 1.5 = 3.34 gallons (Designed Purge Volume)

TOTAL VOLUME PURGED: _____ gal

WATER QUALITY:

Time	Volume Purged (gal)	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Pump Depth (ft)	Notes
1210	0	35.30	PUMP ON							
1215	0.15	—	7.77	1.297	—	4.09	19.68	125.3	41	
1220	0.75	—	7.76	1.383	40.58	2.72	19.39	77.1		
1225	1.0	—	7.75	1.391	21.73	2.47	19.43	40.7		
1230	1.8	—	7.74	1.373	12.11	2.79	19.49	-1.3		
1233	2.0	—	7.73	1.368	14.74	2.91	19.51	+8.2		
1237	2.5	—	7.72	1.356	15.36	3.06	19.51	39.9		
1241	3.0	—	7.71	1.350	11.38	3.16	19.53	36.9		
1245	3.4		7.64	1.344	9.62	3.15	19.47	30.5		
1245		START SAMPLE COLLECTION								
1252		SAMPLE COMPLETED: 1/2 gal. IPEC								
1252		PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	3
Turbidity meter	20070 4293

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing

Groundwater Elevation measurements are given in feet msl.

Use both Submersible and geo pumps.

WELL ID: MW-SO-66
SAMPLE ID: 017

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: sunny 80°F

PROJECT NO: 01.0017869.91
DATE: 9/8/08
SAMPLER(S): M. BELTOS
PUMP DEPTH: 60.0 ft

WATER QUALITY:

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	purged H2O (gal) Notes
1140	1061								
1143	1120	7.36			7.49	25.9	148.2		
1144		PUMP OFF							
		Let recharge and then start @ slower rate							
1155	1071	PUMP ON						0.07	
1159	1082	7.44	1315	—	6.89	2530	151.7		
1203	1100	7.46	2.569	—	4.43	24.89	158.3		
1207	1096	7.47	2.581	—	2.27	24.52	155.9		
1215	1074	7.49	2.602	7.43	2.49	24.46	152.9		0.001
1222	1076	7.50	2.610	7.70	1.35	24.34	148.7		0.005
1232	1080	7.52	2.60	8.57	1.25	24.19	145.1		0.010
1233	1084	7.53	2.621	8.13	1.18	24.11	144.1		0.030
1246	1083	7.54	2.633	7.89	1.22	24.13	142.7		0.05
1253	1079	7.54	2.642	7.93	1.25	24.17	140.3	↓	0.08
1255		START SAMPLE COLLECTION							
1421		SAMPLE COMPLETED : 1/2 gal "PEC							
		PUMP OFF							

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	
flow meter	85
turbidity meter	2007042252

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

SAMPLE ID: MW-53-120(010)

GZA GeoEnvironmental of New York
Modified Traditional Purge
Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: Sunny 80's

PROJECT NO.: 01.0017569.91
DATE: 9/5/08
SAMPLER(S): M. B.

WATER COLUMN HEIGHT (ft)

120 (DTB) − 60.10 (DTW) = 59.90 (Well Column Height)

Well Diameter: 1 inches

Diameter	Multipliers
1	0.041
2	0.163
4	0.653

GALLONS OF WATER PER WELL VOLUME:

Water Column Height 59.90 x 0.041 (Multiplier) = 2.46 gallons (Well Volume)

2.46 x 1.5 = 3.68 gallons (Designed Purge Volume)

TOTAL VOLUME PURGED: 3.70 gal

WATER QUALITY:

Time	Volume Purged (gal)	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (mS/m)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Pump Depth (ft)	Notes
0950	0	PUMP ON							105.0	
0955	0									
1000	0	increase speed								
1005	0.01	—	7.49	1.548	—	8.45	22.92	230.8		
1010	0.1	—	7.13	1.573	—	7.86	21.88	219.1		
1015	0.25	—	7.09	1.570	—	6.32	21.40	212.4		
1020	0.70	—	7.06	1.580	256.9	5.20	20.72	203.1		
1024	1.0	—	7.04	1.593	794.8	2.88	20.40	189.7		
1029	1.5	—	7.04	1.606	988.7	2.92	20.31	178.1		
1033	2.0	—	7.05	1.629	804.4	2.97	20.26	166.5		
1038	2.7	—	7.05	1.640	812.9	2.78	20.19	157.5		
1041	3.0	—	7.05	1.643	820.5	2.10	20.14	152.3		
1048	3.6	—	7.06	1.646	753.4	3.00	20.17	144.0		
1049		START SAMPLE COLLECTION								
1055		SAMPLE COMPLETED: 1/2 gal. IPEC PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	4
turbidity meter	20070493

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing

Groundwater Elevation measurements are given in feet msl

Use Waterra pump.

WELL ID: U1-CSS
SAMPLE ID: QCX

GZA GeoEnvironmental of New York
Low-Flow Sampling Data Sheet

CLIENT: Entergy - IPEC
SITE: Buchanan, NY
WEATHER: Sunny 80°F

PROJECT NO: 01.0017869.91
DATE: 9/8/08
SAMPLER(S): M. BZ | TDS
PUMP DEPTH: 14.0 ft

WATER QUALITY:

Time	circle one: DTW or GW Elevation	pH (SU)	Specific Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (g/l)	Temp (°C)	ORP	Rate (gal/hr)	Purged H2O (gal) Notes
0928	1.46	PUMP ON							
0933	1.45	7.41	1.671	—	7.71	22.11	156.7	2	
0938	1.46	7.54	1.630	7.21	7.04	21.95	155.3		0.2
0940	1.46	7.57	1.616	3.31	6.93	21.93	151.1		0.25
0945	1.46	7.58	1.610	2.72	6.78	21.93	144.4		0.40
0950	1.46	7.59	1.604	2.90	6.55	21.93	137.6		0.75
0955	1.46	7.59	1.606	3.31	5.80	21.89	134.7		0.85
1000	1.46	7.58	1.606	3.98	4.62	21.89	133.3		1.0
1005	1.46	7.57	1.606	3.93	4.56	21.88	130.3		1.1
1010	1.46	7.57	1.606	4.10	4.42	21.86	128.7		1.25
1012	START	SAMPLE COLLECTION							
1024	SAMPLE COMPLETED				1/2 gal IPEC				
1024	PUMP OFF								

Equipment Used	Equipment Identification #
YSI 556 MPS Reader and 5563 Sonde	6
flow meter	K-1
turbidity meter	20070 4293

NOTES AND OBSERVATIONS:

Depth and Depth to Water (DTW) measurements are given in feet from top of casing.

Groundwater Elevation measurements are given in feet msl.

APPENDIX G: DOSE CALCULATIONS

Facility Groundwater Flux Calculation

Site Indian Point
Job No. 161619.00

Prepared By: MJG
Reviewed By: mjb

Parameter Values:

Totals					
Total Catchment Zone (ft^2)		**Total Improved Zone (ft^2)**	**Recharge (ft/yr)**	**Precipitation (ft/yr)**	
3,969,765		1,355,080	0.87	3.02	
Surface Area					
Northern Clean Zone Improved (ft^2)	**Unit 2 North Improved Zone (ft^2)**	**Unit 1/2 Improved Zone (ft^2)**	**Unit 3 North Improved Zone (ft^2)**	**Unit 3 South Improved Zone (ft^2)**	**Southern Clean Improved Zone (ft^2)**
0	136,704	374,234	309,497	321,290	213,354
Northern Clean Unimproved Zone (ft^2)	**Unit 2 North Unimproved Zone (ft^2)**	**Unit 1/2 Unimproved Zone (ft^2)**	**Unit 3 North Unimproved Zone (ft^2)**	**Unit 3 South Unimproved Zone (ft^2)**	**Southern Clean Zone Unimproved (ft^2)**
111,863	217,667	438,221	323,116	268,862	585,600
Discounted Area Within Zone	**Discounted Area Within Zone**	**Discounted Area Within Zone**	**Discounted Area Within Zone**	**Discounted Area Within Zone**	**Discounted Area Within Zone**
44,831	0	324,509	137,938	17,730	144,347
Northern Clean Zone Catchment (ft^2)	**Unit 2 North Catchment Zone (ft^2)**	**Unit 1/2 Catchment Zone (ft^2)**	**Unit 3 North Catchment Zone (ft^2)**	**Unit 3 South Zone (ft^2)**	**Southern Clean Zone (ft^2)**
156,694	354,371	1,136,965	770,550	607,882	943,302

Activity (pCi/L)

Groundwater

	Northern Clean Zone Catchment	**Unit 2 North**	**Unit 1/2**	**Unit 3 North**	**Unit 3 South Zone**	**Southern Clean Zone**
Upper Zone Before Canal	150	0	3,402	452	882	129
Lower Zone Before Canal	150	106	3,212	1,350	398	231

IPEC00202001

Facility Groundwater Flux Calculation

Site Indian Point
Job No. 161619.00

Prepared By: MJG
Reviewed By: mjb

	Northern Clean Zone	Unit 2 North	Unit 1/2	Unit 3 North	Unit 3 South Zone	Southern Clean Zone
Upper Zone After Canal	150	380	4,108	321	882	194
Lower Zone After Canal	150	546	1,073	458	398	231

Stormwater Discharging to Canal (pCi/L)

Storm Water for Northern Clean Zone	Storm Water for Unit 2 North	Storm Water for Unit 1/2	Storm Water for Unit 3 North	Storm Water for Unit 3 South	Storm Water for Southern Clean Zone
	0		0	0	0
NA	*Avg MH-4a*	*NA*	*Avg CB-14 and CB-34*	*Avg U3-CB-B8*	*Avg D1, CB3, E6, & E10*

Stormwater Discharging to River (pCi/L)

Storm Water for Northern Clean Zone	Storm Water for Unit 2 North	Storm Water for Unit 1/2	Storm Water for Unit 3 North	Storm Water for Unit 3 South	Storm Water for Southern Clean Zone
	0	0	0		1,060
NA	*Avg. MH-1 and MH-12*	*Avg MH-14*	*Avg CB-15*	*NA*	*Avg E13,CB-C2*

IPEC00202002

Facility Groundwater Flux Calculation

Site Indian Point
Job No. 161619.00

Prepared By: MJG
Reviewed By: mjb

Potential Water Received by Storm Drain System

=(Improved Area) x Precipitation

Northern Clean Area	Unit 2 North	Unit 1/2	Unit 3 North	Unit 3 South	Southern Clean Zone	Units
0	412,846	1,130,188	934,681	970,294	644,331	ft^3/yr
0	1,131	3,096	2,561	2,658	1,765	ft^3/day
0.00	5.88	16.09	13.30	13.81	9.17	GPM
0	11,690,498	32,003,363	26,467,218	27,475,679	18,245,408	L/Yr

The total amount of water available to be received by the storm system is computed as the combined area of buildings and paved areas in the catchment multiplied by the annual precipitation rate. Note this conservatively assumes that the amount of water lost to the atmosphere or other sinks after precipitation has fallen on paved or built up surfaces is zero.

Water Directly Recharged to Aquifer from Precipitation

=Unimproved Area x Recharge

Northern Clean Area	Unit 2 North	Unit 1/2	Unit 3 North	Unit 3 South	Southern Clean Zone	Units
97,677	190,063	382,646	282,138	234,765	511,335	ft^3/yr
268	521	1,048	773	643	1,401	ft^3/day
1.39	2.71	5.45	4.02	3.34	7.28	GPM
2,765,899	5,381,977	10,835,334	7,989,263	6,647,817	14,479,386	L/Yr

Note that this calculation reflects recharge to the aquifer in non-paved areas. The Recharge value listed above and used in this calculation reflects only that portion of precipitation that actually recharges the aquifer.

IPEC0020003

Facility Groundwater Flux Calculation

Site Indian Point
Job No. 161619.00

Prepared By: MJG
Reviewed By: mjb

Water Recharged to Aquifer (Direct Recharge Plus Storm Water Leakage Minus Building Drain Removal)

=(Direct Recharge + X% Water Received by Storm System) - (Y% x Water Removed by Building Drains

Total Water Discharged to Aquifer

	[Northern Clean Area Catchment + (0% Storm Drain Water)]	[Unit 2 North + (50% Storm Drain Water)]-[5gpm]	[Unit 1/2 Area Catchment + (30% Storm Drain Water)]-[7.5 gpm]	[Unit 3 North Area Catchment + (50% Storm Drain Water)]-[7.5gpm]	[Unit 3 South Area + (1% Storm Drain Water)]	[Southern Clean Zone Area + (1% Storm Drain Water)]	Units
Upper and Lower Zone	97,677	45,173	194,734	222,510	244,468	517,778	ft^3/yr
	268	124	534	610	670	1,419	ft^3/day
	1.39	0.64	2.77	3.17	3.48	7.37	GPM
	2,765,899	1,279,165	5,514,250	6,300,779	6,922,574	14,661,840	L/Yr

Groundwater Discharged to Canal

=Water Recharged to Aquifer x X% flowing to Canal

	Northern Clean Area Catchment x 0%	Unit 2 North x 34.6%	Unit 1/2 Area Catchment 22.6%	Unit 3 North Area Catchment x 56.3%	Unit 3 South Area x73.9%	Southern Clean Zone Area x 0%	Units
Upper and Lower Zone	0	15,630	44,010	125,273	180,662	0	ft^3/yr
	0	43	121	343	495	0	ft^3/day
	0.00	0.22	0.63	1.78	2.57	0.00	GPM
	0	442,591	1,246,220	3,547,339	5,115,782	0	L/Yr

IPEC0020004

Facility Groundwater Flux Calculation

Site Indian Point
Job No. 161619.00

Prepared By: MJG
Reviewed By: mjb

Groundwater Discharged to River

=Water Recharged to Aquifer x X% flowing to River x Y% Flowing in Appropriate Vertical Zone

	Northern Clean Area Catchment x 100% x 33.5%	Unit 2 North x 65.4% x 21.7%	Unit 1/2 Area Catchment 77.4% x 35.9%	Unit 3 North Area Catchment x 43.7% x 28.7%	Unit 3 South Area x 26.1% x 34.4%	Southern Clean Zone Area x 100% x 51.8%	Units
Upper Zone	32,722	6,411	54,110	27,907	21,949	268,209	ft^3/yr
	90	18	148	76	60	735	ft^3/day
	0.47	0.09	0.77	0.40	0.31	3.82	GPM
	926,576	181,536	1,532,223	790,237	621,536	7,594,833	L/Yr
	Northern Clean Area Catchment x 100% x 66.5%	**Unit 2 North x 65.4% x 78.3%**	**Unit 1/2 Area Catchment 77.4% x 64.1%**	**Unit 3 North Area Catchment x 43.7% x 71.3%**	**Unit 3 South Area x 26.1% x 65.6%**	**Southern Clean Zone Area x 100% x 48.2%**	**Units**
Lower Zone	64,955	23,132	96,614	69,330	41,857	249,569	ft^3/yr
	178	63	265	190	115	684	ft^3/day
	0.92	0.33	1.38	0.99	0.60	3.55	GPM
	1,839,323	655,037	2,735,807	1,963,203	1,185,255	7,067,007	L/Yr

Water Remaining in Storm Drains and Discharged to Canal

=Storm Drain Water x X% Not Leaking to Groundwater and Not Discharging to River

Northern Clean Area Catchment (0% Storm Drain Water)	Unit 2 North (45% Unit 2 North and 30% of Unit 1/2 Storm Drain Water)	Unit 1/2 Area Catchment (0% Storm Drain Water)	Unit 3 North Area Catchment (4% Unit 3 North Storm Drain Water)	Unit 3 South Area (4% Unit 3 North and 47% Unit 3 South Storm Drain Water)	Southern Clean Zone Area (30% Unit 1/2, 32% Unit 3 North, 47% Unit 3 South, and 94% Southern Clean Zone Storm Drain Water)	Units
0	524,837	0	37,387	493,426	1,699,863	ft^3/yr
0	1,438	0	102	1,352	4,657	ft^3/day
0	7.47	0.00	0.53	7.02	24.19	GPM
0	14,861,733	0	1,058,689	13,972,258	48,134,772	L/Yr

IPEC00202005

Facility Groundwater Flux Calculation

Site Indian Point
Job No. 161619.00

Prepared By: MJG
Reviewed By: mjb

Water Remaining in Storm Drains and Discharged to River

Northern Clean Area Catchment (0% Storm Drain Water)	Unit 2 North (5% Storm Drain Water)	Unit 1/2 Area Catchment (10% Storm Drain Water)	Unit 3 North Area Catchment (10% Storm Drain Water)	Unit 3 South Area (5% Storm Drain Water)	Southern Clean Zone Area (5% Storm Drain Water)	Units
0	20,642	113,019	93,468	48,515	32,217	ft^3/yr
0	57	310	256	133	88	ft^3/day
0	0.29	1.61	1.33	0.69	0.46	GPM
0	584,525	3,200,336	2,646,722	1,373,784	912,270	L/Yr

Flux Calculations

Conceptual Model: Migration Pathway Summary

	Northern Clean Area	Unit 2 North	Unit 1/2	Unit 3 North	Unit 3 South	Southern Clean Zone
GW	100% Upper and Lower Zone To River	68.6% Upper Zone and Lower Zone Flow To River. 31.4% Upper Zone and Lower Zone Flow to Canal	73.4% Upper Zone and Lower Zone To River. 26.6% Upper Zone and Lower Zone to Canal	41.2% Upper Zone and Lower Zone To River. 58.8% Upper Zone and Lower Zone to Canal	26.1% Upper Zone and Lower Zone To River. 73.9% Upper Zone and Lower Zone to Canal	100% Upper and Lower Zone To River
SW	NA	To Canal (Storm Water Considered Clean; Estimated at 5.5 GPM) and To River (5% Storm Water)	To Canal (60% Storm Water) and To River (10% Storm Water)	To Canal (40% Storm Water) and To River (10% Storm Water)	To Canal (94% Storm Water) and To River (5% Storm Water)	To Canal (94% Storm Water) and To River (5% Storm Water)

Flux (pCi/Yr)

	Northern Clean Area	Unit 2 North	Unit 1/2	Unit 3 North	Unit 3 South	Southern Clean Zone	Total
GW to River-Upper Zone	1.39E+08	6.90E+07	6.29E+09	2.54E+08	5.48E+08	1.47E+09	**8.77E+09**
GW to River-Lower Zone	2.76E+08	3.58E+08	2.94E+09	9.00E+08	4.72E+08	1.63E+09	**6.57E+09**
GW to Canal	0.00E+00	0.00E+00	4.24E+09	1.60E+09	4.51E+09	0.00E+00	**1.04E+10**
SW to Canal	NA	0.00E+00	0.00E+00	0.00E+00	1.43E+02	0.00E+00	**1.43E+02**
SW to River	NA	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.67E+08	**9.67E+08**

Curies/Yr ==> **0.03**

IPEC0020006

Facility Groundwater Flux Calculation

Site Indian Point
Job No. 161619.00

Prepared By: MJG
Reviewed By: mjb

Notes:

The recharge rate used herein, 0.86 ft/yr (10 inches/year). is within the range of values discussed in the USGS modeling report [1]. The reported recharge ranged from 3.6 inches/year to 7.5 inches/year for a till to 20 inches per year for coarse grained glacially stratified deposits. A precipitation value of 3.02ft/yr, (a 10 year average measured at the Facility meteorological station) was also used in the computations. The catchment area was defined using an AutoCAD topo map for the Site and surrounding area. The catchment was defined by starting at the area marked "line of water grant" and tracking east, away from the River, to define portions of the land surface contributing water to the selected discharge zone. Calculations assume that run-off or overland flow in unimproved areas of the Site is negligible, there are no changes in storage and the Hudson River is a gaining stream.

1. USGS. Water Use. Ground-Water Recharge and Availability, and Quality of Water in the Greenwich Area, Fairfield County. Connecticut and Westchester County, New York, 2000-2002

IPEC00202007